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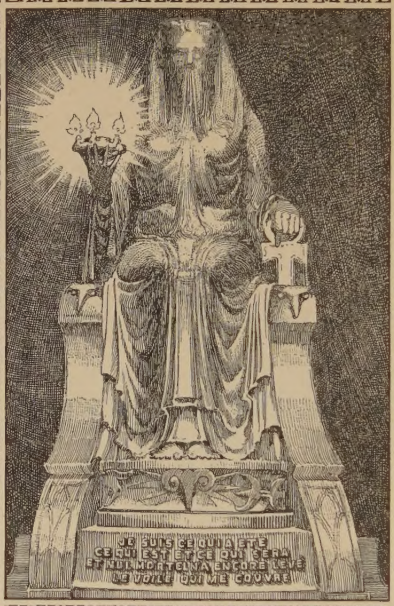

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FEDERAL HEALTH ADMINISTRATION IN THE UNITED STATES

BY

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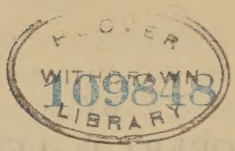

FEDERAL HEALTH
ADMINISTRATION
IN THE UNITED STATES

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TO
MILDRED BOARDMAN LEIGH

FOREWORD

In order to make more definite the boundaries of the study undertaken here it is necessary to explain the principal words of the title. The term *federal* is used not only in the popular sense as the equivalent of *national,* but also in its stricter meaning as signifying a central superstructure organically dependent upon, and having carefully defined relations to, smaller units of government. The national health agencies in the United States are federal in this technical sense. Indeed, so necessary to an understanding of their evolution and operations is some knowledge of the underlying state and local health organizations that a large part of the first chapter is devoted to a description of the latter.

Governmental medical care of the sick has been the foundation or forerunner of more than one of the principal national public health agencies. Furthermore, the curative aspects of medicine are administratively and logically bound up with preventive medicine in several of these services at the present time. For these reasons, although the problems connected with the administration of preventive medicine and sanitation occupy most of our attention, the term *health* has been adopted for the title, including as it does all governmental activities having to do with the care, cure, and prevention of diseases, and the positive promotion of human health.

Administration as employed in the title is practically synonymous with *function* or *service.* We are concerned not merely with the anatomical structure or purely ministerial operations of the various federal health bureaus, but with the whole national governmental machinery in so far as it is directed toward the promotion of public health. This

requires, first of all, an examination of the general constitutional framework which sets limits to the federal health function and more particularly the methods and results of the detailed and delicate adjustments of power made by the courts in fitting successive statutes into the logical pattern of constitutional law. It includes as well an analysis of the mechanism by which conflicting plans and prejudices are made into national health statutes. This means not only a study of Congressional debates and decisions, but also of the complex political forces which concentrate in the lobbies, committee rooms, and caucuses of the Capitol and which emanate from the White House. Our main concern, however, will be with the administrative agencies. For it is to the administrators themselves that we must go if we are to obtain a knowledge of the actual problems and practices connected with the performance of the federal health function.

When we turn from constitutions, statutes, court decisions, and executive regulations to examine the records of administrative action we encounter many difficulties. Office practices, operating methods, and relationships between different units form a stream of situations flowing over the bureau desks from day to day which, although they are the main body of administrative facts, cannot readily be generalized by an outsider into any comprehensive description. There are available the formal annual reports of administrative chiefs and occasionally an illuminating record of administrative experience and opinion in Congressional or executive documents. From such material an historical record of practice may be constructed. What is not mere piling up of dead wood may help in obtaining a picture of actual administration. With much less confidence the student may venture upon the thin ice of an administrator's personal views or even the gossip of official "green rooms." But at best he will be only too conscious that the actual problems of administration to a large extent have eluded him.

If administrators were philosophers, or even doctors of philosophy, much might be accomplished in making the lore of officialdom accessible for academic research. Before the study of public administration can really come into its own the university and the government bureau must become so congenial that there will be not only "scholars in politics," but administrators on furlough turned students for the benefit of both scholarship and public administration.

Already in the public health field there are instances of experienced officials giving courses of academic lectures in public health administration. This is a long step in the promotion of an authoritative connection between sanitary theory and practice. Not as yet, however, have such close relations been established between public health administration and general public administration. This book is primarily an attempt to bring into closer contact some of the special knowledge in these two important fields.

That such an effort will be given whatever consideration it deserves by public health administrators is assured by their increasingly generous attitude toward all disciplines that can contribute in any way to the solution of their special problems. But its main justification is in presenting to general students of government the record of experience and experiment in federal public health administration. This experience is full of significance for those who are interested in such problems of political science as national-state relationships, the organization of administrative units within the same governmental area, the relations of governmental to semi-public associations, and administrative personnel. It is by the rigorous and detailed study of government as an instrument for the performance of each of its specific functions—such as public health—rather than as a thing-in-itself with a logic of its own, that we are likely in the long run to fashion the most effective and lasting political institutions.

. . . . . .

The investigations resulting in this study originated during the author's temporary employment in the United States Public Health Service. Practically all of the viewpoints and generalizations which have gone into its making can be traced to his teachers in public law and public administration —Professors Howard Lee McBain, Thomas Reed Powell, Charles A. Beard, Harold J. Laski, and Graham Wallas. The author is deeply indebted to Professor Arthur W. Macmahon of Columbia University, to Dr. Harry H. Moore of the Public Health Service, and to his wife, Mildred Boardman Leigh, not only for a careful reading of the entire manuscript, but also for encouragement, fruitful suggestion, and criticism all along the way. Materials not in print have been made available through the courtesy of officials and employees of the various federal bureaus performing public health functions.

Robert Devore Leigh

Williamstown, Massachusetts
February, 1927

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FEDERAL HEALTH ADMINISTRATION IN THE UNITED STATES

FEDERAL HEALTH ADMINISTRATION IN THE UNITED STATES

CHAPTER I

EVOLUTION OF AMERICAN PUBLIC HEALTH ORGANIZATION

The problem of community disease is in no sense a modern one. The fragmentary social history of previous centuries presents pictures of mysterious, dimly-feared plagues before which the masses of the people stood helpless. Epidemics of yellow fever, cholera, and smallpox, limited largely to the commercial cities but sometimes affecting whole populations, appeared periodically. Early settlements along the American Atlantic seaboard shared in these visitations, which returned again and again throughout the nineteenth century until the scientific disease prevention program appeared.

The Public Health Movement.—This program which we speak of as the public health movement is, however, very recent. It is as modern as the telephone, the street railway, and the typewriter. In general, the Civil and Crimean wars may be said to mark its beginning. As a social movement it has been greatly affected by four of the major social forces of the era. These are commercial development, the industrial revolution, economic imperialism—all of which have increased the critical and the community nature of the disease problem—and finally, modern science, which has given the key to its solution.

Commercial Development.—The expansion of trade and transportation, so significant in the seventeenth and eighteenth centuries as to be called the commercial revolution, has continued to be a striking and fundamental feature of modern life. In the United States, as elsewhere, the improvement of maritime transportation, of river, lake, and canal communication, the steam railway, the telegraph and telephone, the electric railway, and the motor-car have caused the gradual transformation of a nation of almost self-dependent villages into a closely interwoven and interdependent organization binding city and country together.

As a result the problems of disease have assumed new aspects. Formerly the people in Boston, Philadelphia, Baltimore, New York, Charleston, and New Orleans were the principal victims of epidemic disease which came in with the trade of the high seas. Consequently, seaport towns were the first to create sanitary organizations. But as a result of the commercial expansion epidemics were no longer the special or local problems of the cities by the sea. Intercommunication made severe epidemics and even the milder communicable diseases not only state-wide, but eventually nation-wide, problems. Food once produced and sold within the local area now entered a vast market separating production and consumption by such long periods of time and such great distances that new sanitary problems regarding its preservation and purity were created. At the same time the easy migration of persons, the rapid diffusion of knowledge and news supported by a broader community of opinion, made possible an enlarged, concentrated, and much more effective organization for fighting disease. Thus the commercial development of this and other countries has given a new turn to disease problems.

The Industrial Revolution.—Closely connected with commercial expansion and relying upon it for the growth of markets was the series of momentous changes in the manner of producing goods due to the introduction of power

machinery, division of labor, and the factory system which has been called the industrial revolution. An inevitable accompaniment of industrial expansion has been the rapid growth of cities with hastily constructed and insanitary dwellings inhabited by women and children at work upon debilitating and often physiologically harmful tasks. The physical deterioration and disease connected with factory life and city slums formed another initial cause for, and impulse to, the modern health movement.

Congestion in cities soon created the necessity for a public water supply and sewage disposal. The problem of pure water sources gradually became complicated through the pollution of streams by harmful factory wastes. Bad housing increased the possibility of communicating the "catching diseases," especially the less perceptible types such as tuberculosis. The handling of new and often poisonous chemical substances in industry as well as new kinds of manual work "tending" machines created unprecedented problems in occupational disease and hygiene. Finally the excitement and stimulation of a new urban night life for large population groups, the deadly and abnormal monotony and discipline of the day's occupation, and the increase generally in life's tension for men, women, and children presented, less visibly, perhaps, but no less really, problems of physical and mental hygiene which no previous generation had seen or sensed. The industrial revolution thus ushered in an era of new problems of disease and health.

Economic Imperialism.—A joint product of industrial and commercial expansion was the search, high and low, at home and in out-of-the-way places, for raw materials to be made into the newer industrial products and for new markets to absorb the enormous machine output. For both the raw materials and the markets the industrial nations of the temperate zones invaded the tropics. The tropical regions with their abundance of moisture and heat abound also in insects, and conditions of living prevail which are the means of

carrying some of the most serious epidemic diseases: yellow fever, cholera, malaria, and hookworm. The industrial and commercial—sometimes political—conquest of the tropics, therefore, created grave problems in the control of disease. It gave rise also, as we shall see, to many of the most brilliant victories of preventive medicine and sanitary organization.

Altogether ships, railways, automobiles, factories, cities, and foreign trade in "backward regions" produced an unprecedented situation regarding the magnitude and nature of disease. Left alone there would have developed a crisis regarding health and longevity in every industrial nation in the world.

Development of Science.—The commercial and industrial revolutions were themselves the offsprings of a more fundamental movement which we may call the development of science. From the sixteenth century onward, accompanying the marvelous growth of astronomy, mathematics, physics, chemistry, and biology, came their application to commerce, industry, and agriculture. In the nineteenth century the same basic development of natural sciences and of the scientific method of handling problems was responsible for the creation of the public health technique. Chemistry, biology, physiology, entomology, and engineering not only transformed medicine from an art to a science, but created the whole field of preventive medicine and the scientific attack upon disease. Thus modern science, having indirectly produced new public health problems, helped also to solve them.

The invention of the magnifying lens by Leeuwenhoek in the seventeenth century has been called a starting point for the application of science to the problems of disease. It was not until the latter part of the nineteenth century, however, when Virchow and others had developed the microscope and used it in diagnosis, that the science of bacteriology became

the leading agent in ushering in the new world of preventive medicine.*

As early as 1857 the experiments of the great French scientist, Pasteur, led him to doubt and finally to attack the theory of spontaneous generation as an explanation of disease causes. By 1870 he had instituted the famous series of experiments from which he established the germ theory of the causation of certain diseases. In 1877 came his demonstration of the germ origin of anthrax. There followed during the succeeding years, rapidly at first and continuing down to the present time, the isolation and identification of the germs that cause many of the principal diseases. Koch of Berlin, by reason of his development of the elaborate technique for the investigation, analysis, and identification of disease germs, deserves to be ranked with Pasteur as a leader and pioneer.[1]

Like other developments in pure and applied science, individual contributions were made and shared by the scientific world, including the pioneers in these fields in the United States. The individual origin of many of the discoveries is difficult to assign. Some were made in conjunction, some in collaboration, and all were conditioned by the common fund of rapidly accumulating experiments, hypotheses, and contributions to methodology. A mere catalogue of the principal results obtained in this field will suffice for our purpose. We have mentioned the identification of the anthrax bacillus in 1877. In 1879 came the discovery of the organism of leprosy and of the gonococcus; in 1880 the pneumococcus, the typhoid bacillus, and the malaria parasite; in 1882 the tuberculosis bacillus; in 1883 the spirillum causing Asiatic cholera and the diphtheria bacillus; in 1894

*We have to note, however, the isolated discovery by Jenner late in the eighteenth century (1798) of inoculation with cowpox as a means of preventing smallpox. Although the technique developed later was not used by Jenner, his work was clearly the result of scientific methods of observation and analysis and as such may be termed an important advance in the attack upon the problems of disease.

the plague bacillus; in 1905 the causative germ of syphilis; and most recently the yellow fever germ.

The isolation and identification of specific germs as the causative agents of important and dangerous communicable diseases was a tremendous first step. Further scientific work resulted in better individual treatment and means of public control. In several cases identification led to the development of more accurate individual diagnosis. Notable among valuable contributions in this field were those developed for typhoid, syphilis, and diphtheria—all of great value in public as well as individual health.

Jenner's discovery of the technique of smallpox vaccination was now for the first time adequately explained. And in 1884 Metchnikoff, the Russian biologist, enunciated the theory of pathogenic immunity. Experiments intelligently directed toward immunization led to successful results first in anthrax and diphtheria, then in typhoid, and in other less important diseases, followed by the gradual application on a large scale of the public health measure of immunization. Smallpox vaccination, long practiced, was now much extended by reason of the growth of general enlightenment as to the causes of disease. Along with germ isolation, immunization, and accurate diagnosis, went the development of improved methods of treatment and cure based upon the new knowledge, as in the cases of tuberculosis and syphilis.

Of more direct significance from the point of view of public health were the contributions of entomology, another branch of biology, which was responsible for the identification of the means of transmission of certain germ diseases through insects. Pioneer work in this direction was done by Dr. Patrick Manson and by Theobald Smith—both working on other than human diseases—who demonstrated the part played by mosquitoes and ticks respectively in the transmission of germs. Following this discovery, the *anopheles* mosquito was identified in 1898-99 as the malaria carrier. At about the same time the rat flea was proved to be the

means of transmitting human plague. And at the end of the century, as a result of American experiments in Cuba, the mosquito carrier of yellow fever was identified. In 1902 the *tsetse* fly was found to be a carrier of sleeping sickness in Africa; in 1907-08 ticks were identified as carriers of Rocky Mountain spotted fever; and in 1909-10 the body louse was discovered to transmit typhus fever.

The identification of specific disease carriers was promptly used to improve or revolutionize methods of sanitary control. Before this time sanitation had been developed in England as a means of avoiding disease on the theory that it was caused by filth. But with the new knowledge the real science of sanitary engineering was created. Water purification and sewage disposal, the control of city milk supplies by inspection and certification, were advances in which, throughout the 'eighties and 'nineties, American state and city agencies took a leading part. More recently methods of mosquito control by screening, draining of swamps, and other devices for destroying breeding places have been elaborated; also tick control through the dipping of animals. Quarantine and isolation technique has likewise been made more scientific. An enumeration of the various directions in which medical, hospital, and public health practice has developed as an outgrowth of bacteriological and epidemiological knowledge would be bewildering in its detail. From our description, however, it is apparent that although revolutionary changes in social and economic life, acting alone, would have increased the magnitude of the health problem, a revolution resulting from the application of science to disease has given society new and powerful weapons for its control.

Evolution of American Public Health Agencies.—Before the advent of modern sanitary science there existed, as we shall see, some governmental activity in the United States in relation to disease. But it was essentially insignificant, local, and intermittent. With the new knowledge,

however, government—local, state, national, and even international—as an agency for the maintenance and promotion of health has become increasingly important. Although our primary interest is in the development and organization of the national health and medical agencies, it is essential that we have a clear view of state and local effort. This is necessary not only because the state and the city were long the principal health agencies, but also because the national health organization is to a large extent dependent upon the smaller organizations for its functioning; or perhaps it is better to say that in much of its work it exists as an auxiliary to these agencies. We shall, therefore, devote the remainder of the chapter to a description of the growth, the present organization, and the activities of the state and local public health administrative agencies in the United States.

State and Local Quarantine Before 1870.—Before 1870 the only local governmental activities which deserve the title of public health work were those in connection with recurrent epidemic diseases such as smallpox, yellow fever, and cholera. In the case of the most frequent of these, smallpox, the technique of vaccination had been devised and more or less regularly applied. In almost all localities there were pest houses and local police regulations for the isolation or quarantine of the persons afflicted with epidemic diseases. The public provisions were essentially those for emergencies; they did not require routine administration. The power of quarantine was, therefore, often in the hands of the general executive and police authorities of the community. Such boards of health as existed were created during epidemics; with the passing of the emergency they usually subsided into a dormant condition.

The recurrent epidemics of the early nineteenth century, however, led most of the seacoast cities to organize separate boards of health to exercise the quarantine powers.[2] So also the very severe Asiatic cholera epidemic of 1832-33, which invaded the United States by way of Canada, was an

important cause for the extension of such local boards to the interior municipalities.[3] The growth of the river traffic in the West, bringing with it an increase in the area of yellow fever epidemics, was also influential in the formation of boards in the more important river towns and cities before the Civil War.

In some of the Southern states, where local government was organized largely on a county rather than a municipal basis, the seacoast counties, such as Jackson in Mississippi, Escambia in Florida, and Orleans Parish in Louisiana, organized boards for quarantine purposes. A few states[4] made legislative provisions for the establishment of local health boards. These laws, however, were permissive rather than mandatory and the organization of municipal boards under them was by no means complete. In a number of instances the boards thus created were made up of the general municipal officials.[5]

The establishment of the earliest state health agencies was a continuation of the movement for better local quarantine to cope with recurring epidemics. The first state health board, that of Louisiana, was brought into being by the very serious yellow fever epidemic of 1853. It was in reality a quarantine board devoting practically all of its activity to the city of New Orleans. Likewise the severe cholera epidemic of 1848-49 was one of the factors which led the Massachusetts legislature to authorize the governor to appoint a commission of three to make a sanitary survey of the state and to report its findings. But the work and recommendations of the commission represent also the beginning of a new phase in the administration of public health in the United States.

Development of Modern State Health Agencies.— Lemuel Shattuck, a layman whose interest in sanitation had arisen in connection with the need for more accurate vital statistics, was the principal author of the commission's exhaustive *Report on the Sanitary Condition of Massachu-*

setts presented to the legislature in 1850.[6] It is evident that he was strongly influenced by the example and methods of the English mid-century health organization, with Edward Chadwick at its head. The English had set about seeking the sources of contagion in filth, foul odors, and the decomposition and fermentation of animal and vegetable matter. They were developing better systems of scavenging, sewers, and ventilation. They also began the collection of statistics and the systematic study of the causes of diseases. The Massachusetts Commission recommended a similar development under the leadership of a state board of health. But their report was not acted upon and the Civil War intervened. In 1869, however, partially as a result of the foundations laid earlier, a state board of health was established with the distinguished physician, Dr. Bowditch, at its head. In its early years it proceeded along the lines of the English pre-bacteriological sanitary work and became the model for many boards established within the next decade or two.

A striking quantitative growth of state health organizations began at this time. From 1870 to 1875 five states created health boards. Between 1876 and 1880 thirteen health boards and one chief state health officer were added. From 1881 to 1887 ten more boards came into being, making thirty-two state health agencies, all but one of which were formed between the years 1869 and 1886. There were in this latter year only thirty-eight states in the Union, the other ten of our present commonwealths being at that time territories or not yet in existence. Thus only six states had failed to participate in the general movement for state health organizations. One of them, Florida, had a system of county health boards under control of the governor until 1889, when the inefficiency of such a system during a yellow fever epidemic led to the formation of a state board. Four of the others—Nevada, Nebraska, Colorado, and Oregon—which were sparsely populated and com-

paratively free from spectacular diseases, did not develop real state health agencies until many years later. Georgia was the sixth laggard state. When the territories were organized as states (in one or two cases while they were yet territories) state boards of health were included as a part of the regular state administrative organization.*

The health boards formed in the larger and more populous states reflected not only the Massachusetts example, but also, during the 'eighties, the novel methods of attack upon communicable diseases generally, made possible by the bacteriological discoveries of the period. On the other hand it would be a mistake to assign this remarkable development to the newer sanitary and scientific knowledge. The cholera and yellow fever epidemics of the early 'seventies and the devastating yellow fever epidemic of 1878 were the motive forces in many instances. In some cases the health organizations, thus created for quarantine and relief, suffered a serious relapse during the succeeding years. Many such boards had no full-time executive officer, no adequate appropriations or staffs, and lagged ten, fifteen, or twenty years behind their more progressive sisters in the development of sanitary engineering, vital statistics, laboratory organization, protection of the food supply, and control of nonepidemic, communicable diseases. Since the type of work done depends a great deal on appropriations and personnel and very little on the more visible structure revealed by organic statutes, the growth of the more modern phases of public health work in the states cannot be charted chronologically. It may be said, however, that taking the average of states rather than the exceptions, the period from 1890 to 1910 marks the transition from the older methods of quarantine and relief to the modern methods of sanitary engineering and prevention.[7]

* The dates of organization of health agencies in the states are as follows: Louisiana, 1855 (reorganized 1898); Massachusetts, 1869; California, 1870; Virginia, 1872; Minnesota, 1872; Michigan, 1873;

The Present Organization of State Departments.—The central health structures originally created in practically all of the states were nearly alike and have continued to be so. In all but four there is a state health board or council. Its average size is six or seven members, the number ranging from three in a few states to fifteen in one state.[8] In Arizona the board is constituted entirely of state officials serving *ex officio;* in six others, one, two or three *ex officio* members appear. But in most cases the members (a majority of them medical men) are appointed for varying terms by the governor, the governor and council, or governor and state senate. In four states, however, the medical society or association participates actively in the choice. The Alabama state medical society itself constitutes the board of health and elects the state health officer. The society has an executive committee known as the board of censors which serves as a state health board *ad interim.* The county medical societies and their executive committees likewise serve as the county boards of health. In South Carolina also the state medical society is the legal health authority, but appoints a committee of seven which with the governor and two state officers *ex officio* exercises the usual functions of the central health board. The North Carolina

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Maryland, 1874; Alabama, 1875; Wisconsin, 1876; Mississippi, 1877; New Jersey, 1877; Tennessee, 1877; Illinois, 1877; North Carolina, 1877; Connecticut, 1878; Rhode Island, 1878; Kentucky, 1878 (only a nominal board until 1898); South Carolina, 1878; Delaware, 1879; Texas, 1879 (state health officer only—the board was created in 1909); Iowa, 1880; New York, 1880; Arkansas, 1881 (nominal for many years); Indiana, 1881; West Virginia, 1881; New Hampshire, 1881; Missouri, 1883; Maine, 1885; Kansas, 1885; Pennsylvania, 1885; Ohio, 1886; Vermont, 1886; Florida, 1889; North Dakota, 1889 (admitted as a state the same year); Nebraska, 1891; Washington, 1891 (admitted as state two years before); Oklahoma, 1890 (organized as territory the same year); Nevada, 1893; South Dakota, 1893 (admitted as state, 1889); Colorado, 1893; Utah, 1898 (admitted as state two years before); Montana, 1901 (admitted as state two years before); Arizona, 1903 (admitted as state, 1912); Wyoming, 1903 (admitted as state, 1889); Georgia, 1903; Oregon, 1903; New Mexico, 1907 (admitted as state, 1912); Idaho, 1907 (admitted as state, 1890).

state medical society chooses four of the nine members of the state board of health. In Kentucky it nominates and the governor appoints the members of the board. The tendency, however, seems to be away from this control of the state board by the medical guild.

From the beginning almost all of the state boards have had an executive officer. In the early years he was likely to be merely a board member chosen as its chairman or secretary and serving without extra salary or separate status. In one half of the states the executive officer is still a member of the board and in as many serves as its chairman or secretary.[9] In three or four he is still a part-time officer. But in those states where the newer activities have been assumed the executive has emerged as a full-time, paid official with a professional status, chosen by the board or directly by the governor, and taking over more and more of the actual administrative work legally assigned to the board. The position and directive power of the chief health officer, indeed, help to gauge the progressive activity of the state health organization.

As we have noted, there are four states—Idaho, Nebraska, Tennessee, and Oklahoma—where the board has been abolished.[10] In each case the change was a part of a general movement for reorganization of the entire state administrative machine along the lines of the national model (or more exactly, the older national model, since there has been in the last half century a considerable development of national boards and commissions) with concentration of power in a governor and in single commissioners appointed by him and forming a governor's cabinet.*

New York at one time abolished its health board, but later reconstituted it under the title of Public Health Coun-

* In Idaho and Nebraska the health agency in the reorganized system is a bureau in a single-headed department of public welfare. In New Mexico the director of health is responsible not to a board of health, but to a board of public welfare under which there are other welfare services.

cil with advisory relations only, to the state health commissioner. And several other states, among them the largest (Illinois, Pennsylvania, Massachusetts, Ohio, Michigan, North Dakota), as part of a program of general reorganization of the administrative structure, have followed the New York method rather than the completely logical form of single-headed departments.[11] Whether the executive is appointed by the board or directly by the governor, he tends in practice to assume the responsibility for the actual administration of the department. The board, especially if it is an *ex officio* body, tends to be content with advisory and policy-making activities.*

The State Health Functions.—Such uniformity in structure does not indicate any general uniformity or equal development of the actual work done by the various state health departments. Some state agencies are still little more than lay figures. In other states the department maintains an extensive staff, spends large annual appropriations, and carries on through bureaus and divisions a varied program of work. Beneath the variety of activity, however, we can enumerate certain general functions which may help to give a clearer picture of the part that the state plays in the administration of health in the American governmental system.

The original impetus to the creation of state boards, as we have seen, was that of providing emergency aid to localities in the suppression of widespread epidemics. This function all state boards now have legal authority to exercise. In most commonwealths it is a regular practice to vote an emergency or epidemic fund for the board's use. It is presumed that the local health authorities will handle their own communicable disease problems; the activities of

* Texas represents an exception to the general trend of transfer of power. When first created its state health organization consisted of a single executive officer appointed directly by the governor. In 1909, however, a health board was constituted to act with the commissioner.

state departments are coöperative or supplementary to those of the localities. Several statutes provide that in default of local boards or their refusal to carry out state regulations for the suppression of epidemics the state may step in and assume direct responsibility for adequate epidemic measures.

Maritime quarantine for the prevention of epidemics now represents an historical episode in state health administration. Originally in almost all cases this was an activity of the seaport cities. Because of local inefficiency, however, it was assumed directly by some states—notably by Louisiana. Later, as we shall see, state control was gradually superseded by a unified national system until maritime quarantine completely disappeared as an active state function.

As the science of preventive medicine has developed, state interest in epidemic diseases has led naturally to the assumption of some responsibility for the prevention of communicable diseases usually not epidemic on a large scale. Here again the primary responsibility is upon the local communities. But in several respects their limited areas of control have proved inadequate for any rational solution of health problems. In the matter of purification of water supplies and sewage disposal the need for some intermunicipal authority has long been evident. For the purpose of assuming supervision, and in some cases for direct control over this matter, most states have bureaus or divisions of sanitary engineering. For similar reasons state departments have built and maintained tuberculosis sanatoria and dispensaries. In certain other cases, such as in the state participation in maternity, infancy and child hygiene, and venereal disease control, progressive personal leadership or the need for a general coördinating and clearing-house agency has been the principal factor. These two activities have in recent years been rapidly developed under the spur of federal aid. Under similar stimulation there have been created, especially in the South, bureaus devoted to rural sanitation, malaria con-

trol, or county health organization. Frequently there appears separately or in conjunction with this work a bureau or division of public health nursing.

Because of the wisdom of central control and standardization the state health organizations early developed the function of collection and publication of vital statistics. Bureaus for this purpose are now maintained in approximately five-sixths of the states. Here, however, as in other matters, the state depends more or less completely upon locally-elected or locally-appointed officials for the collection of statistics.

As an accompaniment of work with communicable diseases public health laboratories have been set up and maintained in thirty-nine states. Like tuberculosis sanatoria these laboratories are the product of a need for a larger unit to carry on activities so specialized that localities cannot afford them. The state laboratories engage in the routine work of distribution of toxins, sera, and the examination of cultures submitted to them. In some cases, however, they have become the center for research work in communicable diseases.

Public health educational work, such as the distribution of circulars, operation of health exhibits and health cars, is frequently found. And by means of direct contacts, inspections, conferences, and demonstrations the state department usually acts more or less as a clearing house for the local health officials.

These are the main activities carried on by state departments or boards of health. There are, also, health functions performed by the state through other administrative agencies. Food and drug inspection is normally to be found under the charge of a separately elected or appointed dairy and food commissioner. In some places he is a part of the organization of the state department of agriculture. The reason for the separation of this sanitary work from the regular health organization is probably to be found in the fact that food and drug inspection helps to prevent fraud

as well as to promote health and is closely connected with the agricultural interests of the state.

A second administrative function similar to it in nature and treatment is that of factory inspection and the protection of industrial workers. Usually this task forms a part of the duty of a state labor commissioner or industrial commission. Finally, there is the function of examination and licensing of the medical, dental, pharmaceutical, and nursing professions. A board or set of boards is usually constituted for this purpose—although occasionally the state board of health has representation upon the examining board.

Summarizing these activities it is clear that the state health organization performs functions which are mainly supplementary to, or dependent upon, local health organizations. In some cases, as in sanitary engineering, vital statistics, state laboratories, and state sanatoria for special diseases there is an advantage in coöperative administration through means of a larger central unit. And aside from particular reasons it is almost inevitable that with an extensive development of local activities there should be some central office for the exchange of administrative knowledge. In the case of food and drug regulation and factory inspection, as well as in sanitary engineering, the state is to some extent engaged in direct administration with separate field officials. But in almost all of their functions the state departments work through local officers. It is essential, therefore, to examine the organization of local health work.

Municipal Health Agencies.—The expansion of municipal health agencies during the period since the Civil War has paralleled that of the states. It has already been noted that before the modern era there were in existence local health boards for quarantine purposes in practically all the maritime cities and in many of the river and lake ports. The new impetus to sanitation given by the discoveries of the 'seventies and 'eighties and the British mid-century activity, was soon felt throughout the larger cities of the East.

In 1863-64, following a serious typhus epidemic in New York City, a citizens' association was formed which agitated for an adequate health organization. In 1866 its efforts were rewarded by the passage of the Metropolitan Health Law, drafted principally by Dr. Stephen Smith and Dorman B. Eaton, a student of British health development. The board established under this law greatly extended health powers in the metropolitan area and was successful against the epidemic of cholera encountered soon after its inauguration. Its success and prominence led to the copying of the statute in part or *in toto* by several other important municipalities.[12]

Just as Massachusetts had led the way in state health organization along more modern lines, so Boston was not far behind with its Act of 1872 reorganizing the city board. During the period of state board organization in the 'seventies and 'eighties general state acts provided for the establishment of local boards of health. But many municipalities received their health organization and powers from special municipal charters. It is even more difficult, therefore, than in the case of states to trace general or uniform tendencies in the evolution of municipal health organization or activity. A comparatively recent survey of cities containing a population of over one hundred thousand indicates [13] that even at the present time in these larger municipalities public health organization and activity are by no means uniformly or completely developed. In many cities there are boards of health similar to the state agencies. In others the health commissioner is an executive appointed by the mayor, or in some cases by the council; in cities with the commission form of government he is appointed by the commission council, with no board over him. In about one-fourth of the municipalities the chief health officer is a part-time executive engaged also in private practice. In a considerable proportion, the health unit is a separate depart-

ment, but in many cities it is a bureau or division within a department which contains other bureaus.

The chief functions which municipal health authorities have assumed are those already noted as being shared with the state departments: the care of communicable diseases by vaccination, quarantine, and the establishment or support of contagious disease hospitals; the maintenance of a municipal health laboratory, one of whose main functions is usually milk inspection; the collection of vital statistics; and the inspection of food and markets. Although the management of the city water supply and waste disposal, as distinguished from their sanitary inspection, is primarily an engineering and business activity and only secondarily of health significance, the city often gives the task to the health department.

Infant and maternity welfare work, tuberculosis work, attack on venereal disease, general health education, and public health nursing—functions in which the state takes only a small part—are often carried on by private and voluntary agencies in place of, in coöperation with, or in competition with, the official city public health bureau or department. The history of such a public health activity is usually one of initiation by the voluntary agencies, its growth until the work has recommended itself to the public health organization, and its eventual absorption by the latter. Such developments and relationships are varied and irregular, with no very definite types to be found. Other essentially municipal activities relating to health, sometimes carried on under the regular health organization, sometimes under the other municipal departments or under nongovernmental health associations, are the medical inspection of schools, tenement-house inspection, housing regulation, and supervision of community playground and recreation facilities. In the smaller cities and towns health organization dwindles to a point near zero, there being few places under ten thousand

population with a professional health officer and expert health organization functioning in regular preventive work.

County Health Organization.—The development of modern professional public health organization in the rural units of the country has been slower than in the states or cities. There are about 2,950 counties in the United States. Five-sixths of these are rural in character. The average county population is twenty thousand. About half of the counties contain towns with a population of no more than twenty-five hundred people; 10 per cent have no incorporated units at all. About one-half of the states have authorized by law the creation of county boards of health; most counties so authorized have such boards. Practically all of these boards have executive officers appointed by them or serving as their secretaries or chairmen. In most of the states without county health boards the county board of supervisors or commissioners is authorized to appoint the health officer. Less frequently, the health officer is elected directly by the voters of the county. In most of the counties, especially before the impetus to modern preventive work, the health executive was a physician serving on a part-time basis, who took charge of indigent patients and inmates of the county or local institutions, but who was untrained and unfitted for public health activities.

Not until well into the twentieth century did there occur the gradual discovery that the county is a strategic unit for the prevention and elimination of such communicable diseases as typhoid, malaria, and hookworm, with the consequent attempt to build up a modern county public health administration. This has usually taken the form of creating a full-time professional health officer, with a full-time public health nurse as assistant. In some states the existing part-time county organization has been utilized more fully through the mobilization of state financial and personnel aid. The International Health Board (formerly the Rockefeller Sanitary Commission) since 1910, the United States

Public Health Service since 1912, and the American Red Cross (as regards nursing service) since the war, have actively promoted this program of adequate county health staff and appropriations. Even yet, however, the public health organization in most counties is primitive and inadequate.

In 1915 a survey by the Metropolitan Life Insurance Company found seventeen full-time county health officers in five states. The part-time officials, where they existed at all, received small salaries and were not trained for their offices. As the report of the survey says—"Tenure of office is insecure and the machinery is political rather than scientific."[14] In 1926 the number of full-time county officers had increased to 307, or a little more than one out of ten counties. And no doubt a better showing is made with regard to the fitness and salaries of the part-time officials.[15]

The usual county health activities consist of some of the rural equivalents of municipal health work: the reporting of diseases, the collection of vital statistics, and the suppression of communicable diseases by quarantine, isolation, and vaccination. The national agencies mentioned above have stimulated many counties to undertake the protection of rural water supplies and the installation of sanitary waste and refuse disposal. In the South such measures have been aimed, at times, directly at hookworm. Under similar stimulation some counties have undertaken school medical inspection, anti-malarial, anti-tuberculosis, infant welfare, and general public health educational work.

Summary.—Even allowing for great variation between the more progressive and the more backward sections of the country the American states, cities, counties, and towns in the last half century have been gradually but impressively translating the new sanitary, scientific knowledge into administrative practice until public health has come to be one of the major functions of each of these units of government. Looked at from the viewpoint of our whole national history,

the result of the modern scientific discoveries in preventive medicine has undoubtedly been a tendency to transfer health functions and leadership from the localities to the state. The law of many commonwealths reflects the increase of state authority. Several have a uniform state health law or code, sometimes drawn up by the state board of health, and in any case binding upon the local boards. In a number of states power has been granted the state health authorities to veto or revise local health regulations. In many, power has been given the state department to take charge of local administration in case of local neglect. In some, the state board is empowered to remove local health officers for neglect or incompetence and to appoint an officer if the local authorities fail to do so.[16] Since 1908 there have been created in New York, Pennsylvania, Massachusetts, Maine, and Ohio district health organizations including usually more than one county with a state-appointed, full-time health officer in charge. In Vermont and Florida the local health authorities are appointed by the central authorities and act as their agents. In all states there has been a considerable growth of coöperation between central and local agencies by means of conferences, laboratory services, surveys, training schools, and financial aid.

On the other hand there are many examples of extensive and splendidly progressive development on the part of cities, in some cases considerably in advance of state departments. During and since the World War there has been an increasing recognition of the fact that the newer health activities such as maternal, infant, home, school, and adult training in hygiene, are to be organized most adequately in local communities. Effort has therefore been directed toward strengthening, unifying, enlarging, and aiding the local units —rural and urban—so that they may carry on a lion's share of direct health operations with adequate program, appropriations, and personnel. This decentralist tendency is proceeding somewhat from spontaneous local initiative; but

much more so from statesmanlike leadership on the part of state and even national official and unofficial health administrators. It would seem to indicate that health administration has proceeded and will proceed not by following any doctrinaire tendency toward state or local monopoly or clear division of activities along geographical lines, but rather by a general expansion of work which state and local agencies will share with each other and subdivide in a coöperative organization.

In such coöperative development and general expansion what has been and is to be the place of the national government?

CHAPTER II

FEDERAL HEALTH POWERS UNDER THE COMMERCE CLAUSE

Our review of the evolution of American state and local public health organization has revealed a development largely determined by the broader scientific, social, and economic changes of the last century. At least two tendencies have seemed to be discernible: first, the increase of health activity on the part of all the units of government; secondly, a centripetal movement in connection with certain aspects, at least, of both functions and leadership.

It might logically be assumed that the same socializing and centralizing forces would have led to a similar augmenting of national health activities alongside of, if not at the expense of, the states and localities. To a certain degree such an expansion of national health administration has taken place. But at every step the regularity and flexibility of growth has been affected by the peculiarity of our governmental system, of a written constitution containing a fundamental division of governmental powers between the national and the state governments. Before examining the growth and operations of our national health agencies, therefore, it is necessary to define the constitutional or legal framework within which they have been developed.

The Federal Constitutional System.—The origin and justification of our national constitutional system require here only the briefest description. The governmental framework of 1789 was designed to meet certain real and immediate difficulties of business, commerce, and social life which arose out of the political system established by the Articles

of Confederation and the early state constitutions. To quote a careful student of the period whose opinion on this point is representative of most modern historical scholars: "The Constitution was a practical piece of work for very practical purposes. It was designed to meet certain specific needs. It was the result of an attempt to remedy the defects experienced in the government under the Articles of Confederation." [1]

Between the newly-created states there existed a common life of trade and of business relations, which needed for its proper governmental regulation a political unit larger than the separate states. In a few crucial matters like taxation, currency, and commerce the social-economic areas were larger than the existing areas of governmental control. What emerged from the Constitutional Convention of 1787 was a document redividing the governmental powers between the central government and the states, and giving to the central government an enlarged control over crucial matters.

The Principle of Enumerated Powers.—It is evident from the debates in the Convention, as well as from the struggle in the states over the adoption of the Constitution, that this movement for energizing the national government was carried on in opposition to a conviction in the minds of many honest men that such centralization would lead to tyranny. In the face of such a tradition and the political forces it represented, it was only natural that in the nationalizing instrument which was finally adopted the central functions should be the fewest possible for the solution of the practical difficulties experienced under the Confederation. It was partly this political necessity that led to the general device of enumerating the powers granted to the central government and reserving all other governmental powers to the states. It was partly this necessity also that kept enumerated powers down to a minimum. And it was partly this necessity that led to the embalming of a

division of powers in a written document formally amendable only by a special and difficult process, and to the eventual establishment of the courts as guardians of the existing division of functions against legislative or executive encroachment.

Social Changes and Broad Construction.—In the struggle over the redivision of governmental powers carried on in 1787-89 the question of public health was not an issue. During the late eighteenth century there had occurred neither the social-economic revolutions nor the development of preventive medicine. Throughout the thirteen states, as we have seen, governmental sanitation was essentially local, irregular, and of little importance. Public health remained, consequently, one of the group of governmental powers reserved under the new Constitution to the states to be exercised by them or not as they saw fit, or to be delegated partially or entirely to the local governments. If the public health powers of the national government were to be determined solely in the light of the concrete contemporary purposes of the Fathers, it is doubtful whether there could be any basis at all for what has developed at Washington during the succeeding years.

Hardly had the new document been put into actual operation before there began the momentous changes in industry and commerce which we have already mentioned. Later came the development of the scientific basis for sanitation and preventive medicine. Not only in the field of health, but also in many other branches of governmental activity, the social, industrial, and scientific changes transformed state and local into national problems in some or all of their aspects. If these problems were to have a solution at all adequate it was necessary to invoke national governmental action. Nevertheless, our constitutional division of powers, which was "made for a stagecoach civilization," has survived as the framework of government in an airplane and radio world. Or to apply the figure to the particular field under

consideration, an arrangement of governmental powers made for a town pump and pest-house world has become the instrument determining governmental powers in an era of international sanitation.

In the field of public health, as in most other functions, the difficulty has been met not by the formal amendment of the national Constitution, but through a practice of broad constitutional interpretation at the hands of the courts. Whether or not loose or strict construction of words and phrases in the written document is the correct method of applying written fundamental law to succeeding governmental action is for us an academic question. The early decisions, mainly at the hands of John Marshall or under his leadership, were notable for their use of arguments of political wisdom and contemporary expediency, for constitional theory rather than for strict legal precedent or subservient allegiance to the words of the document. It is these decisions that have formed the broad and permanent basis for interpreting the powers under the Constitution in such a way as to give them flexibility and, within limits, adaptability to the changing needs of the developing nation. Two rather definite theories of broad construction set up by the court under Marshall deserve our attention: the doctrines of liberal construction and of implied powers. In Gibbons *v.* Ogden (1824. 9 Wheaton 187-189), which asserted the federal power over interstate navigation under the commerce clause, Marshall said:

> This instrument contains an enumeration of powers expressly granted by the people to their government. It has been said that these powers ought to be construed strictly. . . . What do gentlemen mean by strict construction? If they contend only against that enlarged construction which would extend words beyond their natural and obvious import, we might question the application of the term, but should not controvert the principle. If they contend for that narrow construction which, in support of some theory not to be found in the Constitution, would deny to the government those powers which the words of the grant, as usually understood,

import, and which are consistent with the general views and objects of the instrument; for that narrow construction, which would cripple the government, and render it unequal to the objects for which it is declared to be instituted, and to which the powers given, as fairly understood, render it competent; then we cannot perceive the propriety of this strict construction, nor adopt it as the rule by which the Constitution is to be expounded. . . . It is a well-settled rule that the objects for which it was given, especially when those objects are expressed in the instrument itself, should have great influence in the construction.

The closely related doctrine of implied powers was enunciated by Marshall in the case sustaining the immunity of the Bank of the United States (McCulloch *v.* Maryland, 1819. 4 Wheaton 473, 481) against state taxation:

Among the enumerated powers, we do not find that of establishing a bank or creating a corporation. But there is no phrase in the instrument which, like the Articles of Confederation, excludes incidental or implied powers; and which requires that everything granted shall be expressly and minutely described. . . .

We admit, as all must admit, that the powers of the government are limited, and that its limits are not to be transcended. But we think the sound construction of the Constitution must allow to the national legislature that discretion, with respect to the means by which the powers it confers are to be carried into execution, which will enable that body to perform the high duties assigned to it, in the manner most beneficial to the people. Let the end be legitimate, let it be within the scope of the Constitution, and all means which are appropriate, which are plainly adapted to that end, which are not prohibited, but consist with the letter and spirit of the Constitution, are constitutional.

In interpreting those clauses of the Constitution which grant powers to the central government Marshall and his successors make frequent reference to the phrase in the document itself which provides that Congress is authorized to make "all Laws which shall be necessary and proper" for the carrying out of the powers enumerated. And to meet the Tenth Amendment, designed to protect state powers from federal encroachment, Marshall noted that in reserving all powers to the states not granted to the federal govern-

ment the word "expressly," which had appeared in the preceding Articles of Confederation, was omitted.

Appeals to the general political objects of the framers as well as to the wisdom of allowing for the expansion of governmental power to meet practical need recur again and again in the early decisions. Although succeeding judges have not always followed these paths, it may safely be said that the doctrine of liberal construction has formed a permanent basis for the expansion of national powers within the limits of the written instrument.

The Constitutional Basis for National Health Activity.—If, then, we are to seek the constitutional warrant for national public health activity, it is to be found not in any specific grant of power to the federal government (except in the Eighteenth Amendment in so far as Prohibition is a health measure) but rather in authority authorized by the courts as incident to, or implied in, or necessarily connected with, the exercise of enumerated powers belonging to the federal government. These enumerated federal powers are "the constitutional pegs" on which have been hung through generous court interpretation such national public health powers as are now exercised. In the case of public health, like so many other fields, the principal powers used for this purpose are as follows: the federal power to regulate interstate and foreign commerce; the national power of taxation—especially excise taxation; the power to spend money raised by taxation for the common defense and the public welfare; the power to own and to operate the postal system; the treaty-making power; the war power; and the governing power over territories and Indian tribes. It is necessary to examine the legal possibilities of health activity under each.

The Commerce Clause and Public Health.—The commerce clause of the federal Constitution is briefly expressed: "The Congress shall have the power to regulate commerce with foreign nations, and among the several States, and

with the Indian tribes." It has already been noted that its prime purpose was to provide for a uniform regulation of commerce by land and sea in order to eliminate the difficulties encountered under the conflicting state restrictions and burdens of the Confederation period. The federal government, by an intricate machinery of regulation applied to railways, navigation, telegraph, express companies, and other instrumentalities of commerce, has more or less effectively attained the original and principal object. It is not our concern to trace the boundaries set by the courts in this broad and important field of national responsibility. Rather it is the special uses made of the commerce clause to justify national health administration which interest us.

Police Objects and the Commerce Clause.—The basis for health regulation under the commerce clause is to be found in what is often called the "police power." The attributes of the police power have been simply stated by Freund as follows: "It aims directly to secure and promote the public welfare, and it does so by restraint and compulsion." [2] Although the general term public welfare has at times been particularized by the courts into the promotion of public safety, public health, public morals, or public convenience, they have rather consistently refused to give any definition which purports to exhaust the objects of general welfare or to limit them precisely. It is important for us to emphasize only that public health is universally recognized as a legitimate object for the exercise of the police power.

The actual area of such national authority is determined by decisions of the courts in sustaining or overthrowing Congressional statutes in this field and by surmises as to what the probable decisions of the courts would be upon exercises of Congressional power not yet brought before them.

Although we are mainly interested in the exercise of Congressional power in behalf of public health, our examina-

tion of court decisions must include the other welfare objects as well. This is necessary because the court interpretations of power in one series of objects are often built upon a system of logical deductions from other objects. Thus the police use of the commerce clause for the promotion of public morals often becomes a precedent for the exercise of the same sort of power in the interest of public health. Since the logic of public need and expediency may break through the logic of categories, one cannot assume, of course, that the analogies will always carry over from one field of activity to another. Nevertheless, the courts tend to keep the theoretical structure in a considerable degree of symmetry. The constitutional law of federal police power at all events is full of the logic of analogy.

There is a further reason for including the other welfare purposes in our analysis of the field of federal health power under the commerce clause. Since the legally cognizable object of every federal public welfare statute is the regulation of commerce or some other enumerated power, the legally incidental but real objects of the statutes are not easily classifiable. A white-slave law, for instance, is aimed at the suppression of a moral evil and also, by reducing the activities of the habitual carriers of dangerous communicable diseases, promotes the public health. Child-labor prohibitions are designed to foster child health and vigor and also to reduce illiteracy and juvenile immorality. Pure-food laws, requiring the publication of the true contents of foods and medicines, strive to prevent fraud upon the unwary customer. In the case of patent medicines this also contributes to the public health. Thus the exercise of the commerce-police power in the interest of public health is inextricably connected with the other welfare objects for which statutes are enacted under the same constitutional warrant.

Due Process and Federal Police Power.—In proceeding to view the extent of the national welfare objects under

the commerce clause it is well first to take account of a general limitation upon the enumerated powers of the federal government in the form of guaranties of private rights. There are several such clauses in the Constitution and its amendments, but of most importance in connection with the commerce clause is the phrase of the Fifth Amendment which states that no person shall "be deprived of life, liberty, or property, without due process of law." * The exact meaning of this phrase, its ancestry in common law, and its development at the hands of the courts, form a phase of constitutional history which would lead us far afield.[3] But as applied currently to the exercise of governmental power over interstate commerce in the interest of police purposes it can be expressed as follows: the federal government under the commerce clause as applied to interstate commerce may not interfere with persons or with private property by regulations or prohibitions unless it can be proved to the court that there is a legitimate police or public object, *viz.*, public health, public safety, public morals, etc. In other words, it means that an exercise of the power by the federal government with health purposes must satisfy two tests: is it in the form of, or does it bear a relation to, the regulation of interstate commerce; and is it in form and effect an actual health or welfare measure—not an arbitrary interference with persons or private property?

According to the precedents of our courts certain businesses and persons are held to be inimical to the public health, welfare, or safety. In these cases the Fifth Amendment is silent. There are, in fact, few cases in the field of orthodox police legislation in the interest of public health where the protection of private rights has been called into play successfully before the courts. But the possibility that

* The due process of law clause in the Fifth Amendment limits the action of the national government only. It should not be confused with the identical clause in the Fourteenth Amendment which limits the regulative power of state governments.

it will be invoked should always be kept in mind as a possible limitation upon the exercise of the federal powers when such exercise involves regulation either of persons or of property.

It should be noted that the federal power over foreign commerce has not yet been affected in its actual exercise by limitation. In practice, therefore, the power of police regulation of foreign commerce is to be distinguished as being more complete than the similar power over interstate commerce. The theoretical basis for the distinction is that the national government has the complete power to keep alien persons and property from entering the borders of the United States. In such a situation protections of private rights would not be brought into play. Since the court has never invalidated any regulations of foreign commerce as in violation of due process, it has not had to declare categorically the existence or absence of such limitations. An occasional dictum, however, has gone to extreme limits in reducing the practical effect of the Fifth Amendment as applied to importation. In the leading case of Buttfield *v.* Stranahan (1904. 192 U. S. 470), which sustained an Act of Congress forbidding the importation of tea of inferior quality as determined by administrative standards, the Court said:

> Whatever difference of opinion, if any, may have existed or does exist concerning the limitations of the power [to regulate commerce] resulting from other provisions of the Constitution [Fifth Amendment], so far as interstate commerce is concerned, it is not to be doubted that from the beginning Congress has exercised a plenary power in respect to the exclusion of merchandise brought from foreign countries; not alone directly by the enactment of embargo statutes, but indirectly as a necessary result of provisions contained in tariff legislation, it has exerted a police power over foreign commerce by provisions which in and of themselves amounted to the assertion of the right to exclude merchandise at discretion.

In sustaining an Act of Congress excluding the importa-

tion of deep-sea sponges, passed for the purpose of conservation, the Court said (The Abby Dodge, 1912. 223 U. S. 166): "So complete is the authority of Congress over this subject [foreign commerce] that no one can be said to have a vested right to carry on commerce with the United States." The decision sustaining the Opium Exclusion Act (Brolan *v.* U. S., 1915. 236 U. S. 216) asserted the same doctrine. The federal power to prohibit or to regulate the entry of aliens from foreign ports is as unlimited by the Fifth Amendment as in the case of commodities. The immigration laws contain prohibitions on the entry of persons upon the basis of nationality and of numbers, as well as on grounds of health, safety, or morals. These statutes have at times been sustained under a general power to regulate foreign commerce. The practical absence of the Fifth Amendment limitation is the same as in the case of commodities. Our main attention will then be devoted to charting the path of successful public health authority steering its way, as it must, between the Scylla of these due process limitations and the Charybdis of relevancy to actual commercial regulations.

Interstate Commerce in Harmful Commodities and Persons.—One way of promoting the general welfare through the commerce clause is to prohibit inherently bad or harmful articles from the channels of interstate communication. The power to do this seems to be clearly established by action of Congress, upheld by a consistent line of court decisions. Deciding in favor of the constitutionality of the Pure Food and Drugs Act of 1906 (34 U. S. Stat. L. 768), the Court said with reference to Congressional power:

> That body has the right not only to pass laws which shall regulate legitimate commerce among the States and with foreign nations, but has full power to keep the channels of such commerce free from the transportation of illicit or harmful articles, to make such as are injurious to the public health outlaws of such commerce and to bar them from the facilities and privileges thereof.[4]

Congress has availed itself of this power to forbid interstate transportation and foreign importation of harmful articles by a long series of statutes in the fields of human, animal, and plant diseases, of fraud, and of vice. In the case of bad food and of diseased animals and persons it is not difficult to classify articles as harmful *per se* and to forbid their transportation. Thus an Act of 1884 (23 U. S. Stat. L. 31) prohibited the movement of diseased live stock in interstate commerce. A similar Act prohibited the foreign importation or export of diseased live stock (1890. 26 U. S. Stat. L. 416). A more drastic power over animal diseases was contained in an Act of 1905 (33 U. S. Stat. L. 1264) which authorized the Secretary of Agriculture to lay an absolute quarantine upon shipments of cattle in interstate or foreign commerce when the public necessity might demand it. It is to be noted that such quarantine excluded from interstate commerce, temporarily, animals exposed to disease but not necessarily diseased themselves. So, also, the Public Health Service under Acts of Congress has charge of interstate human quarantine and has regulated the transportation of diseased persons.[5] In the interest of agricultural conservation likewise, interstate quarantine powers have been exercised to control insect pests and to protect plant life against diseases. Interstate transportation has also been prohibited impure food, drugs, and meat. The Act of 1902 (32 U. S. Stat. L. 728) forbade interstate commerce in all viruses, serums, toxins, antitoxins, and the like "applicable to the prevention of diseases of man" except when such products conform to standards of purity and except when the persons carrying on such commerce hold licenses from the proper federal administrative bureau. This Act, it will be noted, provided for regulation of injurious commodities by the administrative method of previous inspection and license. The Meat Inspection Acts of 1906-07 (34 U. S. Stat. L. 679) also set up a system of

federal inspection at slaughter houses and closed interstate and foreign commerce to meat condemned as unfit for use.*

The Pure Food and Drugs Act of 1906 provided for the exclusion from interstate commerce of adulterated foods and drugs, meaning those below certain standards of purity and strength or containing injurious ingredients not mentioned on the label. In some of its provisions this Act provided not for the prohibition of interstate commerce to injurious articles containing harmful ingredients, but rather to fraudulent articles containing unannounced and unlabeled harmful ingredients. By the so-called Sherley Amendment (37 U. S. Stat. L. 416), passed after the unfavorable court decision of 1911 (U. S. *v.* Johnson, 221 U. S. 488), patent medicines were prohibited from interstate commerce if their packages or labels "bear or contain any statement, design, or device regarding the curative or therapeutic effect of such articles or any of the ingredients or substances contained therein, which are false or fraudulent." In 1887, and by later Acts of 1909 and 1914, the importation of smoking opium was prohibited.[6]

Thus commodities, animals, and persons held to be in themselves harmful to the public health have been excluded by statute and by administrative action from interstate and foreign commerce. Exposure to disease as well as disease itself has been used successfully as a basis for exclusion. In only a few cases have these statutes ever been questioned in the courts; and when the constitutional issue has been raised the courts have very clearly sustained the federal power.

Articles and persons which are inimical to public morals are more difficult to classify as harmful in themselves. Probably obscene literature can safely be so regarded. Preceded by several isolated statutes, Section 245 of the Penal

*As a matter of fact, condemned meat is destroyed and thus prevented from intrastate transportation, but not so, condemned live stock.

Code, as now constituted, forbids the interstate transportation, by an express company or other common carrier—

> of any obscene, lewd, lascivious, or any filthy book, pamphlet, picture, letter, writing, print, or other matter of indecent character, or any drug, medicine, article, or thing designed, adapted, or intended for preventing conception, or producing abortion, or for any indecent or immoral use, or any written or printed card, letter, circular, book, pamphlet, advertisement, or notice of any kind giving information, directly or indirectly, where, how, or of whom, or by what means any of the hereinbefore mentioned articles, matters, or things may be obtained or made.

Without attempting to assert the water-tight character of a classification of articles bad in themselves let us pass to the area of control of comparatively harmless commodities which are judged to be harmful in effect.

Commerce in Articles and Persons Not Intrinsically Harmful.—The prohibition of interstate and foreign commerce to things not physically bad in themselves was early tested in the courts in the leading case of Champion *v.* Ames, the so-called Lottery Case (1903. 188 U. S. 321). Although there were many collateral issues in the case, the essential point is that by the majority decision the rule was laid down that lottery tickets take on the character of articles which may be prohibited without violating due process since they are designed for a harmful use at their destination. On the basis of subsequent statutes and decisions it may be considered settled law that articles or commodities which by their nature will result in fraud after interstate transportation may be denied the privileges of interstate commerce.* This rule, presumably, marks out a considerable area of possible regulation in the interest of public health, should such regulation be practicable from the administrative point of view.

* The so-called Net Weight Act of 1913 (37 U. S. Stat. L. 732), amending the Pure Food Law, and requiring the publication on the container of the true weight of the contents, is an example of such a statute.

In the field of morals legislation, the Mann White Slave Act of 1910 (36 U. S. Stat. L. 825) comes under a similar category. By this Act the interstate transportation or importation from foreign countries of women and girls for immoral purposes is forbidden and those who arrange for their transportation are punished. The Act was aimed at the white-slave traffic rather than at prostitutes as such. It may, therefore, be looked at as a prohibition of the interstate transportation to such women and girls as at the journey's end are to be a part of the traffic in women. The statute was upheld as constitutional in Hoke *v.* U. S. (1913 227 U. S. 308).

So also in the interest of the public safety, presumably, a law was passed in 1912 prohibiting the importation or interstate transportation of prize-fight films and pictures. The films forbidden such commercial privileges were considered not bad in themselves, but as possible dangers to public order in their showing at the journey's end. This statute, as regards foreign importation, was sustained in Weber *v.* Freed (1915. 239 U. S. 325). As to interstate transportation, it has not been tested in the courts, although it has been enforced.

Child Labor Case and Limits of Commerce-Police Power.—From these statutes and cases it might be inferred that any commodity, animal, or person could be denied the uses of interstate and foreign commerce if by so doing an injury to public health, safety, or morals could be lessened or eliminated. The first Child Labor case, however (Hammer *v.* Dagenhart, 1918. 247 U. S. 251), indicates that there are limits to the exercise of this power. The federal Child Labor Act of 1916 (39 U. S. Stat. 675) forbade the transportation in interstate commerce of the products of mines and factories in which, within thirty days prior to their shipment in interstate commerce, child labor had been employed. The police object aimed at was the reduction or

elimination of child labor. "The object was not to prevent interstate transportation to things which at the end of their journey or during their journey would do some one harm but which were manufactured under harmful child labor conditions." Previously "wherever Congress had resorted to prohibitions of interstate commerce the prohibition had been justified upon the harmful character of the thing excluded; harmful either to commerce itself or harmful in the use to which it was put." [7]

In a five-to-four decision the Supreme Court majority held the Child Labor Act unconstitutional on the ground that it was not really a regulation of interstate commerce. As a corollary it held it to be a police regulation and therefore an invasion of the police powers of the states. Previous cases of prohibition of commodities were distinguished as confined to those bad in themselves or with evil results likely to happen after their interstate journey. Evidently the judges felt that the opening of the field of federal regulation to such laws as these would make it possible for the national government to regulate business operations of all kinds without limit and would thus nullify the reserved powers of the states.

The dissent of the minority given by Justice Holmes attacked the main grounds of the majority decision. He said: "It does not matter whether the supposed evil precedes or follows the transportation. It is enough that in the opinion of Congress the transportation encourages the evil." [8] He cited the case of Weeks *v.* the U. S. (1918. 245 U. S. 618), which sustained an administrative prosecution under the federal Food and Drugs Act. In that case the violator of the Act had been guilty of making fraudulent promises regarding the ingredients of his article before the shipment was made. Justice Holmes gave this as a case falling outside the majority's limitation of the legitimate field of regulation to articles whose badness consisted in inherent qualities or

in harmful results at the journey's end, since the evil of fraud preceded the shipment. In a similar vein Professor Thomas Reed Powell criticized the majority decision as follows:

> Where the Court made a great mistake in the child-labor case was that it did not see that interstate transportation was a cause of the evil. It distinguished the oleo case, the white-slave case, by saying that in each of those instances the use of interstate commerce was necessary to the accomplishment of the harmful result. Now the use of interstate commerce is necessary to the accomplishment of the harmful result which Mr. Dagenhart succeeded in achieving through winning his case. The use of interstate commerce was necessary to the accomplishment of the result in the child labor case, because if the manufacturer could not have had an extra-state market he would not have employed children.[9]

Other critics questioned the soundness of the majority's fear that by admitting this type of statute the way would be opened for the unlimited regulation of business and manufacturing. They pointed out that the due process clause stands as a protection against the capricious or partisan selection of types of business for restrictive commercial regulation. The minority opinion, moreover, seems to have suggested a reasonable test—*i.e.*, that the evil aimed at by commercial prohibition must be *connected* with the transportation and that interstate transportation must be necessary to its accomplishment, rather than the majority test that the commerce must be anterior to the evil aimed at.

Seldom in recent years has there been such divided opinion among legal experts as over the Child Labor decision. But it must be considered as setting bounds to the police uses of the commerce power. Although these boundaries seem a little uncertain, they are discernible. Commodities or persons may be excluded from interstate commerce if they are possessed of harmful qualities in themselves or will result in harm at the termination of their journey. This limitation does not, of course, apply to foreign commerce, since in the case of imports Congress has full discretion.

Territorial Limits of Interstate Commerce Power.—It has been noted that in the Child Labor case the majority of the Court concluded that the regulation of child labor products in commerce was really an invasion of the power of the states. This territorial limitation of the federal jurisdiction is an important problem with regard to the uses of the interstate commerce power to attack disease, fraud, and immorality. It is seldom that an undesirable commodity or person is engaged in operations wholly interstate in character. From the administrative viewpoint it is, therefore, necessary to coördinate the federal with the state regulating activity in attacking essentially the same evil or set of evils. Here our federal-state division of powers has shown decided weakness by not providing for a consistent and complete attack. To overcome the logical and artificial line of division there have been built up several rules of law and statutory devices which alleviate if they do not solve the difficulty. These we shall now examine.

The historic statement of the general dividing line between foreign or interstate commerce and intrastate commerce was given by Chief Justice Marshall in Brown *v.* Maryland (1827. 12 Wheaton 419) in determining when articles under federal control as imports passed from national jurisdiction into state control:

> There must be a point of time when the prohibition ceases and the power of the state to tax commences; we cannot admit that this point of time is the instant that the articles enter the country. . . . It is sufficient for the present to say generally, that when the importer has so acted upon the thing imported, that it has become incorporated and mixed up with the mass of the property in this country, it has, perhaps, lost its distinctive character as an import, and has become subject to the taxing power of the state; but while remaining the property of the importer, in his warehouse, in the original form or package in which it was imported, a tax upon it is too plainly a duty on imports to escape the prohibition in the Constitution.

This rule as applied generally to the regulation of inter-

state commerce has met with some success. But as applied to police regulations of interstate commerce for the purpose of excluding transportation of "bad" articles we may now say that it has been superseded in favor of further extension of federal jurisdiction. While in the case of Hipolite Egg Co. *v.* U. S. (1911. 220 U. S. 45, 58) the Court decided the particular issue by bringing the goods in question safely under the original-package rule, it went beyond this in its opinion and took the following broad ground:

> There is here no conflict of national and state jurisdictions over property legally articles of trade. The question here is whether articles which are outlaws of commerce may be seized wherever found, and it certainly will not be contended that they are outside of the jurisdiction of the National Government when they are within the borders of a State. The question in the case, therefore, is, what power has Congress over such articles? Can they escape the consequences of their illegal transportation by being mingled at the place of destination with other property? To give them such immunity would defeat, in many cases, the provision for their confiscation, and their confiscation or destruction is the especial concern of the law. . . .

In McDermott *v.* Wisconsin (1912. 228 U. S. 115) the Court had before it a state law regulating intrastate food and drugs which in effect necessitated that labels required by federal law be removed when the individual packages were placed on retail sale. The following extract from the opinion indicates clearly that the Court extended federal control beyond the "original package."

> It is enough, by the terms of the act, if the articles are *unsold,* whether in original packages or not. . . . The doctrine of original packages has its origin in the opinion of Chief Justice Marshall in *Brown v. Maryland,* already referred to. It was intended to protect the importer in the right to sell the imported goods, which was the real object and purpose of importation. To determine the time when an article passes out of interstate into state jurisdiction for the purpose of taxation is entirely different from deciding when an article which has violated a Federal prohibition becomes immune. The doctrine was not intended to limit the right of Congress, now asserted, to keep the channels of interstate com-

merce free from the carriage of injurious or fraudulently branded articles and to choose appropriate means to that end.

Thus, relying mainly on arguments of administrative necessity, the police activities under the interstate commerce clause have been extended into and beyond the former legal limits of state power. Not only administrative pursuit, but also, as in the Meat Inspection Act of 1906 (34 U. S. Stat. L.669), preliminary inspection and license are allowed as methods of police control of articles in interstate commerce. The federal control of harmful articles is thus made both comprehensive and administratively adequate.

In the case of meat inspection, however, the federal power extends only to the inspection of meat in plants intending interstate shipments. Practically, this includes most slaughter houses, but it does not reach some of the smaller places which have only an intrastate market. These are controlled, if at all, by state police regulations. The only reason for such a division of administrative activity is the constitutional one. From the viewpoint of sound administration, of economy, and of common sense it would be much better to have the federal inspection include all slaughter houses. This is one of many cases where neither Congress nor the courts have been able to interpret the general clauses in the Constitution in such a way as to keep federal powers in adequate touch with the realities of modern need. Examples of the embarrassment arising from such legal restraints of national police regulations could be multiplied. It is difficult to see how they could be cured except by constitutional revision or by such gradual enlargement of federal power by court interpretation as has now practically wiped out state control of railway rates.

Territorial Limits of Control of Imports.—In the case of police regulations of foreign commerce the courts have been equally generous in allowing administrative pursuit into the usual legal sphere of the states to secure more effective enforcement of the law. In the Opium statute

(1922. 42 U. S. Stat. L. 596), for instance, there is a provision for the detection and arrest of smugglers after the opium is within the states. Also in the case of the White Slave Act and the various immigration exclusion laws there are provisions for apprehending and deporting anarchists, criminals, prostitutes, and procurers at any time after their entrance into the United States; insane persons, those who commit crimes in the United States, and aliens who become public charges may be deported at any time within five years after their actual entrance into this country. The judicial theory upon which this administrative action is built is that of fraudulent entry. Entry is assumed to have been fraudulent, however, in cases where it is by no means certain that the person actually practised fraud in concealing the illegality at time of entrance. An alien found to be an anarchist several years after entrance is presumed to have been an anarchist evading detection at entrance; so also with prostitutes and the insane. Yet it is generally believed that these prohibited defects may develop at almost any time or point in a career, depending partially at least upon environmental influences. The court rule is a convenient fiction for the securing of adequate enforcement of the federal police law.

Unhappily this same fiction has not been extended to cover the vicious germs of bubonic plague, typhus, and other communicable diseases which escape the quarantine officer's vigilant examination, to break out later in the seaports. The enforcement of maritime quarantine, just as the curbing of opium smugglers or white-slavers, to be effective would require that cases escaping detection should be followed up by vigorous inland quarantine. When the bubonic plague was found in San Francisco, and more recently in the Gulf ports, it was clear that it was the result of foreign importation; yet it was legally beyond the competence of the federal officers to deal with it directly. Practically, as is often the case, the problem was turned

over to federal officers by appointing them or their assistants state officers with state authority. Administrative efficiency would certainly be enhanced in dealing with the essentially national problem of maritime quarantine if the courts could discover some fiction to endow the disease germs with malevolent intent to evade the microscope at the water's edge, or to ascribe anthropomorphic immorality to the rats that bear the plague fleas ashore.

The history of federal human quarantine appears at first sight to reveal an even more important lack of federal power to deal adequately with the situation. When, however, we examine the statutes and the cases, it is evident that Congress never has exercised its full constitutional power of maritime quarantine. Fortunately, the main difficulties are only historical now that the states and localities have voluntarily given up their separate quarantine. By a series of measures beginning in the eighteen seventies the federal government established quarantine stations at or near important ports. Its constitutional authority for such regulation over foreign commerce was not challenged. But the states in some cases (to be explained largely on local, financial, and personal grounds) maintained duplicate quarantine stations in the exercise of their police power. Although the effect of double quarantine gave adequate enough prevention against the importation of disease, its apparent uselessness rendered the quarantine system needlessly bothersome to shipping.

Cases arose in which the power of the states to exercise drastic quarantine power was called into question as being in violation of the federal commerce power. The courts validated its exercise not on the ground that dual quarantine was constitutionally inevitable, but because the federal quarantine laws had yet not brought into play the whole federal quarantine power over commerce. In the leading case of Morgan *v.* Louisiana (1885. 118 U. S. 455, 464) the Court in a dictum said:

But it may be conceded that whenever Congress shall undertake to provide for the commercial cities of the United States a general system of quarantine, or shall confide the execution of the details of such a system to a National Board of Health, or to local boards, as may be found expedient, all State Laws on the subject will be abrogated, at least so far as the two are inconsistent. But until this is done, the laws of the State on the subject are valid.

A similar doctrine was enunciated in succeeding cases, notably *Compagnie Française v.* Louisiana State Board of Health (1901. 186 U. S. 380). Whether an act of Congress assuming complete national control over quarantine would prevent supplementary state or local quarantines has not been decided. Since the states have retired from the field the point will probably not be raised. We may conclude, however, that th· federal power over foreign commerce in the interest of health is adequate and, except at a few points, is not rendered ineffective by the constitutional division of power in relation to commerce.

Federal Power in Aid of State Police Power.—It has happened at times that the national policy in relation to police objects has been that of aiding and encouraging the exercise of state police power rather than duplicating or superseding it by the exercise of direct national power. In these instances the police power under the commerce clause has been brought into use in a different way. It has long been held by the courts that in most situations where Congress has not acted the federal power over interstate commerce is in existence. State regulations of persons or things actually interfering with free commerce are held to violate the tacit federal authority, which in the absence of Congressional statute requires untrammeled interstate and foreign commerce. The practical effect of this interpretation is to give to the courts the determination of the limits to which the state may go in affecting commerce through the establishment of local or state quarantine against persons, animals, or things. Here again it may be said that a study of the cases indicates that the courts have

been generous in allowing the states the use of practicable and effective measures of quarantine.

By a series of statutes reversing unfavorable court decisions Congress has used its power of commercial regulation to make more effective state prohibition of commerce in intoxicating liquors. Such an exercise of interstate commerce authority by way of releasing federal jurisdiction in favor of the exercise of state police authority is now of only academic interest as applied to the problem of the liquor traffic. But it stands as a precedent; as a device which might be used in the case of other commodities it is worthy of examination.

The early history of the court interpretation of the constitutional limits of state liquor regulations is not easy to condense into a consistent statement. By 1890, however, there was established in the cases of Leisy *v.* Harden (1890. 135 U. S. 100) and Bowman *v.* Chicago N. W. Ry. Co. (1888. 125 U. S. 465) the original package doctrine as applied to shipments of liquor into Prohibition states. Under this doctrine the states were often helpless in preventing the importation and sale of liquor, since liquor shipments were protected as original packages and under interstate jurisdiction from dealer to consumer. The state police object was thwarted. To cure the defect Congress in 1890 passed the Wilson Act (26 U. S. Stat. L. 313), which abrogated the original package rule as applied to liquor shipments. It declared all liquor to be within state jurisdiction and under the same conditions as liquor of local origin, upon its arrival in the state and delivery to the consignee. This Act was upheld by the Court in the case *in re* Raher (1891. 140 U. S. 545). Evasions were still possible under this Act, and as a cure Congress passed the Webb-Kenyon Act (1913. 37 U. S. Stat. L. 699) prohibiting the shipment of intoxicating liquor into a state where it would be used in violation of local regulations. This Act was upheld by the Supreme Court in Clark Dis-

tilling Company *v.* W. Md. Ry. Co. (1917. 242 U. S. 311). Shortly before the adoption of the national Prohibition Amendment a still further step was taken by the passage of the Reed Bone Dry Amendment (1917. 39 U. S. Stat. L. 1069), which positively forbade the transportation of liquor into any state prohibiting its manufacture or sale. This was also upheld by the Court in U. S. *v.* Hill (1919. 248 U. S. 420).

Coöperating and Conflicting State Police Regulations.—A final problem in definition of the line between state and national police activity under the commerce clause is presented where the state through its general police power and the national government through police regulations under the commerce power are regulating the same objects. The difficulty in the case of national and state quarantine has already been suggested. It has also come out clearly in the enforcement of the federal Food and Drugs Act.

The courts have ruled that in this field the active exercise of federal power does not necessarily preclude all state regulation. It merely limits the state to making such regulations as do not conflict with those of the national government. A state regulation supplementing or adding to federal regulations is not in conflict with it. Thus a state statute which requires the ingredients of patent stock food to be indicated upon the package when offered for sale within its borders was held not to be in violation of the less detailed and less stringent regulations of the federal law applying to the same class of articles.[10] So also a statute of North Dakota requiring lard not sold in bulk to be put up in containers holding certain specified weights and labeled in the manner described in the law was held not to be in conflict with the federal law.[11] But in McDermott *v.* Wisconsin,[12] where a state law provided a specific form of label on cans of syrup containing glucose and prohibited any other labels, such regulation was held

to be in conflict with the federal Food and Drugs Act which provides for certain statements on labels of food in cans.

Summary.—Our review of federal and state power indicates that the commerce clause is an important basis for national public health activity. Broadly it may be summed up as giving the national government power to regulate, discourage, or prohibit interstate or foreign transportation of articles whose transportation would result in a detriment or danger to the public health. This general statement, however, requires at least three qualifications.

In the case of foreign commerce the widest discretion possible is given to Congress to prohibit articles or persons from entering; the national power is, therefore, quite complete. In interstate commerce, however, the character of articles or persons must be accepted by the courts as injurious; else the prohibition falls under the ban of the due process clause protecting private property and persons from interference by the government. This clause stands as a sort of censor over proposed prohibitions of interstate commerce for reputed health objects.

A second limitation upon health regulations of interstate commerce is that the prohibitable articles have, by the Child Labor case, been limited to those intrinsically harmful in character or those which participate in evil transactions or processes at the end of the interstate journey. Unless articles can be included in one of the two categories they are protected against federal regulation either by the due process clause or by the concept that such regulatory acts go beyond interstate commerce limits and seek internal state regulations.

A third limitation upon the use of federal regulation by means of the commerce clause in the interest of public health is that the national power ends roughly at the destination of the interstate journey or the act of foreign importation. For purposes of actual and effective enforcement of prohibitions, federal administrative pursuit of bad

articles or persons after the journey's end has been allowed; also the commencement of such journeys has been prevented by systems of preliminary inspection and license. But for such of the "bad" articles as travel only within state limits the federal police power has no terrors.

In mitigation of such limitation, it should be noted that the federal commerce authority may be used in aid of and in coöperation with the state efforts along similar lines. Thus the negative federal power over transportation which prohibits state interference with commerce in the interest of health objects may be withdrawn by acts of Congress so as to add effectiveness to state police measures. Where states erect regulatory agencies dealing with the same articles or persons as are regulated by the federal government, there is a broad area within which they may cooperatively cover the whole field without legal conflict. The supremacy of national power within its jurisdiction is at the same time maintained against state regulations which nullify or minimize the effect of the national police measures.

The area of federal health authority under the commerce clause, although not easy to trace at all times, is, therefore, by no means inconsiderable. Without stretching the plain meaning and purposes of the written instrument too far the courts have attempted to uphold the effective use of federal health powers. The division of national and state health powers on the somewhat fortuitous bases of their relation to transportation is quite artificial in character and violates rules of economy and efficiency. Yet notwithstanding the seemingly logical and exact character of our constitutional system, the actual legislative and administrative practice worked out under the supervision of the courts is, within certain crude limits, quite pragmatic, piecemeal, and governed by expediency. Nor is this characteristic confined to the commerce clause. It also marks several other provisions of the Constitution which serve as a basis for federal health activity.

CHAPTER III

FEDERAL HEALTH POWERS UNDER THE TAXATION AND OTHER CLAUSES

THE second great power granted to the central government which may be used in the interest of public health is that of taxation. The delegation to Congress of independent taxing authority for revenue purposes ranks with commercial regulation as one of the main objects of the framers of the Constitution. With the general success of the taxation provisions in attaining the primary purpose of revenue and with their legal limitations we are not here concerned; rather are we concerned with the police uses of one aspect of the power—that of laying excise taxes. For through excise taxation Congress has authority to regulate commodities and persons while it raises revenue.

Police Uses of the Taxing Power.—In one sense the police uses of the federal power of indirect taxation are more ample than those of the commerce power. The national government is not limited to interstate jurisdiction in reaching the objects it seeks to effect. If a commodity may be taxed at all by federal authority it may be reached anywhere, not, as in the case of the commerce power, only when it strays into the channels of interstate trade. This absence of the horizontal limitations characteristic of the power over commerce has been shown in the preceding chapter to have an important bearing on effective administration.

In practice it may be assumed also that the federal taxing power is not limited so strictly by the due process clause as in the case of interstate commerce regulation. The courts in

setting limits to national taxing authority have as yet in no instances stated those limits in terms of a violation of due process. This has been true despite the fact that the state power of taxation has frequently been clipped at the edges by the corresponding due process clause in the Fourteenth Amendment.*

The late Chief Justice White in several opinions ventured the point of view that the due process clause might be held to be entirely absent from the consideration of national taxing power. He maintained that when a tax is held to be confiscatory it is no longer a tax and, therefore, is a regulatory act unconstitutional for lack of basis in any delegated grant of federal power. But this is a verbal distinction without much value in clarifying the problem. Others with the same set of facts might hold the same tax to be confiscatory and, therefore, illegal as lacking in due process. At any rate, the actual federal tax may be confiscatory in the sense of driving business from the field without violating due process so long as it may be related to a revenue purpose.

Limitations on the federal taxing authority, however, do exist. The most important of these, so far as police or public health purposes are concerned, is almost precisely the same as that under the commerce clause. A statute may be regulatory or prohibitory, but it must show on its face a revenue or tax purpose, just as a prohibition under the commerce clause must show a definite relation to interstate transportation. In both fields the national child labor laws have led to the setting forth of this limitation in court decisions. Both statutes were regulations of child labor—one refusing to permit interstate commerce in their products, the other taxing the factories. In one case it was held that the child

* A reason for this difference may be that the national government, except for the income tax, is limited by the Constitution to impose indirect taxation only, while the states make important use of the powerful weapon of direct taxation.

labor aimed at was not reached by a *bona fide* regulation of articles in interstate commerce, and in the other that it was not for a revenue or taxation purpose.

In the economic sense it is evident that any burden in the form of a license or excise tax laid upon a commodity or business is a regulation of that commodity or business. As Judge Cooley declared, "Revenue is not and never has been the sole object of taxation." Tax regulation may be so severe as to be actually a prohibition, as has been true of the protective tariff on many commodities and the tax upon colored oleomargarine. It may be ever so light but still be accompanied by extensive regulations of the taxpayer which result in a considerable interference with his business. The use of taxation for such legally incidental but really regulatory purposes has been established by a long history of Congressional statutes. As in the case of the commerce clause, the determination of the actual area of the taxation-police power can best be made by seeing the line drawn in the principal cases.

The Oleomargarine Case.—For long the leading case on regulatory excise taxation was McCray *v.* United States (1904. 195 U. S. 27). In 1886 Congress levied a tax of two cents per pound upon oleomargarine (24 U. S. Stat. L. 209). By an amendment in 1902 (32 U. S. Stat. L. 93) this tax was increased to ten cents per pound. The latter Act provided also that oleomargarine not artificially colored to resemble butter should be taxed only one quarter of a cent per pound. The debates in Congress upon both the original measure and its amendment indicate clearly that the legislative object was to discourage, if not to prohibit, the manufacture of oleomargarine used in competition with butter and especially in imitation of it.

The Court in a six-to-three opinion decided in favor of the statute. In answer to the objection that the amended tax was prohibitive because of its rate the Court reiterated the frequently announced principle of interpretation that it

could not take judicial cognizance of the alleged legislative intent. It refused, therefore, to assume responsibility for determining just when a tax, due to its amount, ceases to be a tax and becomes a prohibitive and illegal police regulation of the commodity affected. The law was upheld as being on its face a revenue measure. The contention was also raised that since it was a prohibition on colored oleomargarine the tax violated the due process clause of the Fifth Amendment. The Court brushed this aside with the statement that the oleomargarine industry was by its nature one which the federal and state governments might regulate without violating any fundamental protection of property rights. Justice White intimated (in a dictum) a possible future limitation to this direction of the taxing power. To quote (p. 64):

> Let us concede that if a case was presented where the abuse of the taxing power was so extreme as to be beyond the principles which we have previously stated, and where it was plain to the judicial mind that the power had been called into play not for revenue but solely for the purpose of destroying rights which could not be rightfully destroyed consistently with the principles of freedom and justice upon which the Constitution rests, that it would be the duty of the courts to say that such an arbitrary act was not merely an abuse of a delegated power, but was the exercise of an authority not conferred.

In 1910 Congress passed an Act putting a heavy tax upon poisonous phosphorus matches (37 U. S. Stat. L. 8). This kind of taxation is almost identical with that appearing in the oleomargarine statute. Although the Act has never been questioned in the courts, it is the general belief that it would fall under the precedents of the McCray case.*

* The primary purpose of this match tax, according to its chief author, was to eliminate the disease of "phossy jaw" incurred by workmen in factories where matches were made. When the studies of the Bureau of Labor Statistics revealed the seriousness of the health hazard, the match manufacturers were quite willing to eliminate these matches from the market and to manufacture only the more expensive but harmless red phosphorus matches. The tax was suggested as a means of preventing

Such regulatory excise taxation appears to have been well established as a legitimate exercise of national power.

The Narcotic Drug Act.—In the case of the federal regulation of the narcotic drug traffic the taxation clause is used with a regulatory purpose similar to that in the oleo tax, but with a revenue aspect different from it. The Narcotic Drug Act of December, 1914 (38 U. S. Stat. L. 785), requires the dispensers of such drugs in the United States to register with the federal collector of internal revenue and to pay a special tax of one dollar. Other provisions of the Act require the use of order forms for the obtaining of narcotic drugs except in the case of physicians registered under it who may prescribe for and dispense drugs to patients provided they keep certain records for federal inspection. Another exception provides that dealers may issue drugs to persons upon prescriptions by registered physicians if such dealers preserve the prescriptions for inspection. The detailed provisions with reference to inspection and records seem to indicate, as do the debates in Congress, that the law was passed with the principal object of securing publicity and control of records of the traffic in drugs as a means of national regulation. The law in fact by its terms also controls the drug traffic directly and probably was intended to do so.

It came before the courts in the case of Doremus, a physician registered under the Act, who sold *heroin* to one

unscrupulous persons from entering the field by manufacturing the cheaper match. It has been successful in its purpose of driving the matches off the market and a complete failure as a source of revenue. Since it was a self-imposed limitation on the existing manufacturers no one has contested its validity in the courts. If it were now brought before the Supreme Court would it fall under the category of the valid tax on oleomargarine or the invalid tax on child labor employers? Really, it is a tax on a way of doing business, just as the child labor tax was. No doubt, however, the matches themselves might be successfully pictured to be a danger to overcurious children and thus an incidental evil serve to sustain the Act. For a discussion of the measure and its purpose by Ethelbert Stewart, Chief of the Bureau of Labor Statistics, see *American Journal of Public Health,* March, 1926, p. 247.

Ameris, a drug addict. The sale violated that part of the Act requiring Doremus to use Internal Revenue Bureau forms for recording the transaction. It was claimed on his behalf that the part of the statute which he had violated was a regulation of drug selling and bore no real relation to the raising of revenue. Doremus had paid his dollar tax under the law. The Court in sustaining the statute found the following in regard to the administrative provisions and their relation to a revenue purpose:

> Considered of themselves, we think they tend to keep the traffic aboveboard and subject to inspection by those authorized to collect the revenue. They tend to diminish the opportunity of unauthorized persons to obtain the drugs and sell them clandestinely without paying the tax imposed by the federal law. This case well illustrates the possibility which may have induced Congress to insert the provisions limiting sales to registered dealers and requiring patients to obtain these drugs as a medicine from physicians or upon the order of regular physicians. Ameris, being, as the indictment charges, an addict, may not have used this great number of doses for himself. He might sell some to others without paying the tax; at least, Congress may have deemed it wise to prevent such possible dealings because of their effect upon the collection of the revenue (U. S. *v.* Doremus, 1919. 49 U. S. 86, 94).

There was a dissent of four judges who could not find any real relation between the regulatory provision in question and the taxation provision of the Act. The majority decision shows how far the Court was willing to go in reading in the Act, or into the Act, a revenue purpose. It should be noted that in this statute taxation is not used as a means of regulation through imposing an economic burden, but as a means of carrying out certain administrative purposes in connection with the persons nominally taxed. The decision stands as validating a possibly important extension of federal regulatory powers. By means of a nominal license tax the public health agencies of the national government might extend their control or prohibitions to a certain type of noxious or dangerous business where possession of records yields

a basis for effective regulation. And like the commerce power, federal taxation may be employed as an aid to the states in the enforcement of their laws.

Tax on Child Labor Employers.—An excise tax more closely akin to the type of the oleomargarine tax, since it sought to regulate by the economic burden it entailed, was contained in the Act of February 24, 1919 (40 U. S. Stat. L. 1138), by which Congress imposed an additional tax of 10 per cent upon the annual net profits of employers in certain industries who knowingly employed during any portion of the taxable year a child within prescribed age limits. The statute was passed after the failure of the Act prohibiting interstate commerce to child labor products. It was an attempt to extend federal power through the door of the taxation clause after the closing of the door of the commerce clause by the Supreme Court decision.

The Court considered this Act in Bailey *v.* Drexel Furniture Company (1922. 259 U. S. 20); by an eight-to-one decision it was declared invalid as on its face not a revenue measure. The opinion did not openly overrule the Oleo case and it disclaimed any examination of legislative motive. But it did find in the text and machinery of the law itself the purpose of regulation rather than of taxation. In the majority opinion Chief Justice Taft laid stress upon the nature of the tax. Its vice, he said, was not that it was a prohibitive tax upon a commodity—such a thing might be valid in accordance with the precedent of the oleo tax—but that on its face it was a tax upon a departure from a detailed and specified course of doing business, *viz.*, a tax upon the employing of child labor. Further, he noted that the law established no relation between the amount of the tax and the number of children or the duration of their employment during the year. "In the light of these features," he said, "a court must be blind not to see that the so-called tax is imposed to stop the employment of children within the age limits prescribed. Its prohibitory and regulatory

effect and purpose are palpable" (p. 37). The law was condemned, therefore, because it was not a *bona fide* tax—an act for raising revenue—but a police regulation for which there is no authority in the national Constitution.

Although the Court attempted to distinguish this case from the Oleomargarine decision because of the thing taxed —*i.e.*, in one case a commodity and in the other a way of doing business—it is difficult for the layman to discover anything other than a difference of judgment in the statement of the Court as to the legislative motives. And to a layman it is also apparent that in both the oleomargarine and child labor taxes the legislature had a primary regulatory object. The difference was said to come from an analysis of the Act itself. But it seems quite impossible to determine the probable purpose or intent of a statute without regard to the results which its features embody. Perhaps a stronger reason—one inducing three judges who had voted to uphold the oleo tax to join with the majority of eight in declaring the tax on profits of child labor employers illegal—was that of governmental policy rather than strict legal precedent. This broad ground is enunciated in the written opinion of the Chief Justice as follows:

> Grant the validity of this law, and all that Congress would need to do hereafter, in seeking to take over to its control any one of the great number of subjects of public interest, jurisdiction of which the states have never parted with, and which are reserved to them by the Tenth Amendment, would be to enact a detailed measure of complete regulation of the subject and enforce it by a so-called tax upon departures from it. To give such magic to the word "tax" would be to break down all constitutional limitations of the powers of Congress and completely wipe out the sovereignty of the states (p. 38).

This decision was followed closely by the decision in Hill *v.* Wallace (1922. 259 U. S. 44) which held unconstitutional a federal tax of twenty cents per bushel upon grain sold for future delivery except under circumstances elaborately provided for by regulations in the Act. One excep-

tion was that of sales by one who owns the grain at the time of sale; the other was that of sale through a member of a board of trade designated by the Secretary of Agriculture as fulfilling many detailed regulations set forth in the statute itself. It required no great judicial realism to discover that this Act was a regulation of trading in futures by penalizing through means of a heavy tax those who did not subscribe to such regulations. It was, therefore, like the child labor tax, declared void as not a *bona fide* tax at all.*

By these recent decisions limits have been set to the use of taxation by the federal government for a police or regulatory purpose. The exact nature of such limits, the point where a federal measure which bears on its face the provision that a tax is to be adjudged not a revenue measure but really regulatory, is difficult to define. The judicial tests seem unreal in character so long as they attempt to distinguish between the plainly prohibitory oleomargarine tax and the equally prohibitive tax upon child labor employers by calling one on its face a revenue measure and valid, and the other not a revenue measure and, therefore, invalid. The Harrison Narcotic Act can probably be placed in a different category from both of these laws as being at least not prohibitory taxation, since there accompanies the rather strin-

* In U. S. *v.* Linden (268 U. S. 5), decided in 1925, the Court showed a disposition to narrow the police objects of taxation without overruling the Doremus case. In this decision the Court sustained a physician who sold drugs to a patient to be self-administered to treat addiction as such. The narrowing effect of the Child Labor cases is seen in the following quotation from the opinion (pp. 17, 18), "We accept as established doctrine that any provision of an act of Congress ostensibly enacted under powers granted by the Constitution, not naturally and reasonably adapted to the effective exercise of such power but solely to the achievement of something plainly within the power reserved to the States, is invalid and cannot be affirmed. . . . Obviously, direct control of medical practice in the State is beyond the power of the Federal Government. Incidental regulation of such practice by Congress through a taxing act cannot extend to matters plainly inappropriate and unnecessary to reasonable enforcement of a revenue measure."

gent and extensive "incidental" regulation of the drug traffic a revenue feature yielding some revenue.

One wonders what the Court would hold in case of a tax administratively the equivalent of the oleo tax—*i.e.,* a tax on profits of designated manufacturers very low in amount with a higher tax upon such manufacturers as employ child labor; or what it would hold in the case of a prohibitory tax upon all oleomargarine except that designated by the Secretary of Agriculture as not colored in imitation of butter. It is an open question how far the McCray oleo case has been overruled.

Without entering too far into this speculative subject we may conclude that the door is closed to the particular type of taxation which sets up federal standards or regulations and then taxes deviations from those standards at a high rate. It would seem that the door is open to the use by the national government to nonprohibitory or relatively light taxes upon a business or commodity for the purposes of regulating and controlling it by requiring access to records and by prescribing certain business practices, as in the case of the Harrison Act. We may even suppose that the door is still open to, or at least ajar for, the high and possibly prohibitory taxation of single commodities with the purpose (not expressed in the text of the law although freely admitted in Congressional debates) of discouraging the manufacture or use of such articles.

Taxation as Regulation Under Other Enumerated Powers.—We have not considered here the use of regulatory or prohibitory taxation under the other delegated powers of the national government such as the commerce and currency clauses. Rather have we been reviewing the power of regulation possessed under the independent enumerated federal taxing power. Wherever other clauses of the Constitution give Congress a regulatory power over persons or commodities, taxation to the point of confiscation may be used as a means of regulation. In the leading case of Veazie

Bank *v.* Fenno (1869. 8 Wallace 533) the Supreme Court upheld a plainly prohibitive tax upon state bank notes. In its opinion the Court took the ground that the taxation of state bank notes was justified under the power granted Congress to regulate the currency, and that the tax method might be selected from several alternatives for the regulatory purpose. In such a case as this it makes no difference whether there exists a real revenue purpose or not. The exercise of Congressional power is justified not as taxation, but as a regulation of the currency, a power delegated expressly to the federal government.

In the Head Money Cases (1884. 112 U. S. 580) the federal tax on shipowners of fifty cents for every alien immigrant brought into the United States was justified as a regulation of commerce. Likewise a trifling stamp tax upon goods intended for export, with the purpose of preventing fraud, was upheld as a legitimate regulation of commerce, not as a tax upon exports, which by specific constitutional limitation is prohibited to the national government (Pace *v.* Burgess, 1875. 92 U. S. 372). So the protective tariff might be similarly justified as an exercise of the plenary federal power over foreign commerce.

We may conclude that taxes may be used by the national government as important means of regulating particular commodities or persons in the interest of the public health when at least the double object of revenue and police restriction can be combined in a legislative act or when the regulation can be supported by one of the other enumerated federal powers.

The Federal Appropriation Power.—A third important basis for federal public health activity is the federal appropriation power. It is, however, only with some reservation that it may be called a power at all. It is based entirely upon the last part of the federal taxation clause, which is worded as follows: "Congress shall have power to levy taxes . . . to pay the debts and provide for the common defense and

general welfare of the United States." We have already seen that there are limitations upon the federal government's power of excise taxation. The clause quoted above does not add to those limitations; rather it states that with money in Uncle Sam's pocket or in anticipation of such money, it may spend it for stated purposes—*i.e.*, the common defense and the general welfare.

Just what do these statements do to limit the national government in spending its revenues for any purpose that its lawmaking agencies please? The term "common defense" standing alone might serve as a fairly definite limitation of expenditures to Army, Navy, and other preparatory and auxiliary war machinery. But just what limitation is implied in the accompanying term "general welfare"? Is this term a limitation at all or is it so general that any expenditure voted by Congress might appropriately be included under the object of general welfare?

The answer to these questions is to be found in constitutional law. But, as in the other fields, there is also a constitutional theory which goes back to the interpretation of what was meant by the framers of the Constitution. In constitutional law, as determined by court decisions, there seems to be an agreement that general welfare is to be left to Congressional or political determination and that the money in the federal treasury may be spent for any purpose deemed by the lawmaking agencies to be public. In constitutional theory there is a difference of judgment regarding the freedom of the spending powers which is worthy of consideration.

Madison, Hamilton, and the General Welfare Clause.—The divergent judgments are essentially those of the two makers and contemporary interpreters of the federal Constitution, Alexander Hamilton and James Madison. Their views have been examined and ably summarized in an article by Professor Corwin. It will suffice for our purpose to set them forth here rather briefly. The Hamiltonian or

broader view of the welfare clause was foreshadowed in *The Federalist* (Nos. 30 and 34); it was set forth fully in the famous *Report on Manufactures* in 1791 in which Hamilton defended federal bounties for selected lines of manufactures. To quote from his defense:

> The phrase is as comprehensive as any that could have been used, because it was not fit that the constitutional authority of the Union to appropriate its revenues should have been restricted within narrower limits than the "general welfare," and because this necessarily embraces a vast variety of particulars which are susceptible neither of specification nor of definition. It is therefore of necessity left to the discretion of the National Legislature to pronounce upon the objects which concern the general welfare, and for which, under that description, an appropriation of money is requisite and proper. And there seems to be no room for doubt that whatever concerns the general interests of learning, of agriculture, of manufactures, and of commerce, is within the sphere of the national councils, as far as regards an application of money.

The narrower view was developed earlier by Madison also in *The Federalist* (No. 41), where he argued that the general welfare clause restricted the objects of expenditure to the other delegated powers under the Constitution. This narrower view, which would set important constitutional limits to Congressional appropriation power, appears from time to time in the opposition to expenditures for internal improvements during the period from their beginning to the Civil War. Madison repeated the argument in his Presidential messages. Monroe and Buchanan used it also, or at least a modification of it, which might be said to have been a compromise between Madison's and Hamilton's views. The modified doctrine asserts that while the general welfare objects of expenditure are not strictly confined to the other enumerated federal powers, they are limited by the broader division of powers between the nation and states as set forth in the Tenth Amendment. This denies the right of national expenditures to invade the field of usual state powers. Such

a definition is, of course, more proper for an executive to use in justifying a veto than for a court to employ in voiding an Act of Congress. It belongs to the realm of constitutional theory rather than to law.

Court Decisions and the General Welfare Clause.— Despite the pre-Civil War executive pronouncements regarding narrow construction of federal spending powers, an actual and gradual expansion of the national appropriations for objects not enumerated in the Constitution took place. Internal improvements were paid for from the federal Treasury. Agencies such as the Department of Agriculture, the Bureau of Mines, the Children's Bureau, and the Public Health Service, whose main activity is investigation, research, publication of information, and informal aid to the states, were created and allowed to grow. The broader or Hamiltonian view of the federal spending power was given such silent legal sanction as may be implied from the enforcement of laws without their being questioned in the courts. As agricultural promotion and similar activities involved no direct interference with the private rights of the individual nor any active curtailment or interference with state activities, rather their stimulation, there was little incentive to seek legal redress against federal expenditure.

At the beginning of the Civil War period there was instituted the system of using federal money (at first federal lands) as gifts to the states in consideration of the states' spending the money granted them on a stipulated basis or for a stipulated purpose. As it has developed, it provides for a federal appropriation to be distributed among the states on a population or some other basis. Usually, however, before any state may receive an allotment it must match its share of the federal appropriation with an equal amount appropriated for the same purpose. Furthermore, it must comply with more or less detailed regulations as to the way in which the federal money may be spent. The regulations usually include reports, standards, and periodic inspection.

This system, known as federal aid, has been applied in its complete form in the United States for the promotion of special types of education, road building, and health.

The state legislature is left free to accept or to reject federal grants. In this sense there is no coercion. But it might properly be said that federal aid implies a certain amount of moral pressure upon the states. It is the sort of pressure, for example, which a university exercises in favor of bachelorhood when it says that it will award fellowships to ambitious men under thirty who are unmarried. So each state, although free to accept or reject federal aid in any instance, necessarily feels the pressure to comply which is inherent in the offer of free financial assistance to perennially impecunious legislatures.

Until recently federal aid has developed without legal opposition. But in one of the latest cases of such legislation—the federal Maternity and Infancy Act, which grants money to such states as comply with federal regulations for carrying on coöperative maternity education—the validity of the statute was attacked on grounds of constitutional law by the attorney-general of Massachusetts as well as on grounds of constitutional theory by several governors. In this instance the Commonwealth of Massachusetts attempted to enjoin the payment of appropriations under the law on the ground that it was usurpation of power and an attempted exercise of the power of local self-government reserved by the Tenth Amendment to the states. A suit also was brought by a Massachusetts taxpayer against the federal government for taking property in the form of taxation for this purpose without due process.

The United States Supreme Court dismissed these cases for want of jurisdiction (Frotheringham *v.* Mellon and Massachusetts *et al. v.* Mellon, 1923. 262 U. S. 447). The opinion, however, in explaining the want of jurisdiction, hinted at the substantive constitutional issue. The state, it held, could not appear as a party to a suit unless its rights

were affected by the statute questioned. Then the Court said (pp. 482-3):

> But what burden is imposed upon the state, unequally or otherwise? Certainly there is none, unless it be the burden of taxation, and that falls upon their inhabitants, who are within the taxing powers of Congress as well as that of the states where they reside. Nor does the statute require the states to do or to yield anything. If Congress enacted it with the ulterior purpose of tempting them to yield, that purpose may be effectively frustrated by the simple expedient of not yielding.
>
> In the last analysis, the complaint of the plaintiff state is brought to the naked contention that Congress has usurped the reserved powers of the several states by the mere enactment of the statute, though nothing has been done and nothing is to be done without their consent; and it is plain that that question, as it is thus presented, is political and not judicial in character, and therefore is not a matter whch admits of the exercise of judicial power.

In the case of the taxpayer's suit the Court based its decision squarely upon lack of jurisdiction. After admitting that an individual taxpayer's suit against municipal governments had been allowed it went on to say (p. 487):

> But the relation of a taxpayer of the United States to the Federal Government is very different. His interest in the moneys of the Treasury—partly realized by taxation and partly from other sources—is shared with millions of others; is comparatively minute and indeterminable; and the effect upon future taxation of any payment out of the funds so remote, fluctuating, and uncertain that no basis is afforded for an appeal to the preventive powers of a court of equity.

Elsewhere (p. 488) the Court pointed out the evil results of allowing taxpayers' suits which question any and all appropriations, concluding its opinion by reaffirming the limitation of its power of review to actual cases which involve the real rights of aggrieved parties "when the justification for some direct injury suffered or threatened, presenting a justiciable issue, is made to rest upon such an act." [1]

The opinion in this case, although perhaps not conclusive, points not only to the extreme difficulty, if not the impos-

sibility, of getting the question properly before the courts at all, but also to the clear constitutionality of this form of appropriating federal moneys. The method of federal grants in aid remains, then, a significant and expanding type of legitimate federal health activity. Along with other aspects of the appropriation power it forms an important part of the area of national authority in matters of public health to be limited, evidently, only by public opinion expressed through legislative agencies.

The Police Uses of the Postal Power.—A third basis for national health activity is the power given Congress "to establish post offices and post roads." With this authority the federal government has built up under its ownership and direction a monopoly of the postal service. From time to time the central postal power has been extended to other related activities such as parcels transportation and banking. But with the general development of the national postal activity in direct line with the main purpose of the constitutional grant, we are not here concerned. It is rather in the use of the postal system to discriminate against articles or types of business that we are interested, for here we find the legal basis for public health activity.

Sustained by court decisions, Congress has from time to time authorized the police use of postal facilities by excluding objectionable matter. Obscene literature, lottery tickets, and other fraudulent matter, prize-fight films, seditious and treasonable publications, have been prohibited the use of the federal postal facilities. Although this is not absolute suppression, it has the practical effect of ending the mailable career of the excluded articles, since the federal postal system is intrastate as well as interstate and is a monopoly. Any prohibited article that depends upon mail circulation for sale or consumption has its means of existence destroyed. The exercise of the power of exclusion in the interest of public health is infrequent. The practical necessities of health regulation have not as yet required to any extent inter-

ference with commodities using the mails. But exclusion from the post is a constitutional reality not to be neglected. It has formed an incidental part of the means of enforcing the Food and Drugs Act under the power given to punish for fraudulent use of the mails. And latterly it has been used to some extent in the war against medical quackery.

How far the power of exclusion might be employed in the police regulation of businesses or organizations is a matter which has not been definitely determined by court decisions. But some idea of its extent is worth having before us. As in the case of the commerce and taxation clauses, the federal power of postal-police regulation is limited by the private rights protections of the federal Constitution. The question has been raised as to how far the federal authorities might go in excluding publications from the mails without violating the First Amendment guaranteeing the freedom of the press. Thus far the courts have allowed exclusions for anarchy, obscenity, and fraud as not running afoul of the liberty of publication. The decisions have rested partially upon the ground that prohibition of circulation is not equivalent to prohibition of publication and that Congress may refuse its postal services to things it deems bad without infringing the individual right of publication.[2]

In a recent case the Supreme Court upheld the denial of second-class mail privileges to a newspaper when the denial was made by the Postmaster General, partly on the ground that since several issues had been omitted because suppressed, the publication was irregular and, therefore, was not entitled to the mailing rates providing regular publication. This appears to be a grant of almost unlimited power over publications.[3] It is probably true, however, that if Congress or the Post Office Department carried censorship or exclusion power to great lengths, the courts would invoke the First Amendment as a prohibition against its use.*

* The Fourth Amendment, which protects the individual against unwarranted search and seizure, has been called into play to protect first-

As in the case of the commerce and taxing power, the question has arisen whether or not the Fifth Amendment guaranteeing due process of law serves as any limitation upon the power of Congress to use the mail exclusion power as a means of regulating individuals and businesses deemed objectionable. Could the postal power, for instance, be used as a means of attacking child-labor industry by refusing to the employers of child labor the use of the mails?[4] Congress has not yet chosen precisely this indirect mode of attack upon business it holds objectionable. The courts have not, therefore, decided what would be the limits of such use of power. Arguing from the analogy of the limitations of power under the commerce and tax clauses, we might reasonably conclude that the courts would not allow such an extension of authority. So far the items excluded from the mails have been the "bad" things aimed at or instruments of evil themselves. The correspondence of a child labor employer, however, is not evil in itself unless it be held that every item of the child labor employer's activity is part of an immoral whole. It is probable that the courts would follow the line of argument pursued by Chief Justice White in relation to the taxation clause and by Chief Justice Taft in the Child Labor Tax decision—that such exclusion from the mails is not really an exercise of the postal power at all, but a pretended use of the postal power to punish individuals for evils unrelated organically to the articles excluded from the mails. Or it might be held that the articles excluded, not being in themselves bad, are protected by the due process clause against interference by governmental agency.

It is conceivable, of course, that the proprietary conception of the national government as postal operator might lead to a distinction in which the federal agencies would be considered to have perfect freedom in choosing postal customers—a doctrine which would lead to upholding exclu-

class matter against being opened by postal officials in the line of their detective work.

sions of any sort irrespective of private right. But to do so would mark a triumph of logical ingenuity over the realities of business and mail transportation, an attitude which is not indicated by recent decisions under the commerce and taxing clauses.

It is of some interest to note the recent statutes and decisions which are treading near the border line of federal postal police power. An Act of March 3, 1917 (39 U. S. Stat. L. 1069) prohibited the mails to liquor advertisements in states where by state law it is illegal to advertise or solicit orders for intoxicating liquor. In Leach *v.* Carlisle (1922. 258 U. S. 138) the Supreme Court upheld a fraud order against the vender of a panacea medicine called Organo Tablets. Probably the farthest limits to which regulation through the postal power has gone is seen in the Newspaper Publicity Law, which was sustained by the United States Supreme Court in Lewis Publishing Company *v.* Morgan, (1913. 229 U. S. 288). Here is a statute which sets down as a requirement necessary to the securing of second-class mailing privileges the submission of a sworn statement giving the names and addresses of owners, editors, business managers, and (in case of daily newspapers) circulation figures. It also requires all paid advertising to be marked as such. The contention of the complainants against this law was that it aimed to regulate journalism under the guise of postal regulations. The Supreme Court, without indicating any general limits to the postal regulatory power, sustained the Act as a regulation incidental to, or connected with, the securing of second-class mailing privileges, or a regulation incidental to classification.

The extent of the postal police power is thus one of latent importance to national public health activity should the future needs of health administration involve it in the attempt to eliminate certain matter as it passes through the mails. It seems clear that there is constitutional authority for the

use of the exclusion power where it can be shown that the matter excluded is detrimental to the public health.

The Treaty-making Power.—Another federal power available as a possible basis for national health activity is that of making treaties with foreign nations. It is possessed, let it be noted, not by Congress, but by the President with the consent of two-thirds of the Senate. Here is what would appear to be a plenary federal authority. Just as in the case of the taxing clause where it is asserted that the power to tax may be applied to any and all objects within the limitations of the taxing clause itself, so the treaty-making authority may probably conclude any and all arrangements of a regulatory nature so long as they are in the form of treaties with foreign governments.

As in the case of the taxing, the appropriation, and the postal powers, however, we have the two opposing views as to the extent and limits of the authority—one which asserts that plenary or arbitrary power exists; the other which would limit the subjects of treaties to the other delegated national powers, or which claims that the reservation of powers to the states in the Tenth Amendment is a general limitation to the objects of treaty-making, or which asserts that the treaty-regulation power must stay at least within the bounds of the due process clause. The practice in treaty-making thus far has been such that few cases have occurred where conflicts between the federal and state spheres were considered to exist or where the due process of law clause has been in question. But whenever such conflicts have appeared the courts have found no limitations on the treaty power. Thus, so far as adjudicated cases go, the defenders of the broader interpretation of the treaty clause apparently have the best of it. It should be noted, however, that there are several dicta which indicate that the Court holds that the treaty power is limited by other clauses in the Constitution.

A few cases will suffice to show the extent to which the

Court has already gone in marking out a broad sphere of possible action under this authority. In 1913 Congress passed the Migratory Bird Act (37 U. S. Stat. L. 847) under the authority of the commerce clause of the Constitution. It was held unconstitutional by a federal district court (214 Fed. 154). There was also adopted in 1916 the Migratory Bird Treaty (39 U. S. Stat. L. 1702) with Great Britain, accompanied by a Congressional enforcement Act passed July 3, 1918 (40 U. S. Stat. L. 755). In Missouri *v.* Holland (1920. 252 U. S. 416) the State of Missouri attempted to prevent the federal game warden from carrying out the enforcement statute. The Court, speaking through Justice Holmes, upheld the treaty and the Act enforcing it. After making the general qualification that the treaty power undoubtedly had some limitations he said regarding the matter (pp. 433, 434):

> The only question is whether it is forbidden by some invisible radiation from the general terms of the 10th amendment. . . . We are of the opinion that the treaty and the statute must be upheld.

Tactically this case presented the same situation as the second Child Labor case, where Congress, prevented under one federal clause from exercising authority to attain a certain legislative object, used another power to attain the same object. The outcome was successful in one case and not in the other.

There are other cases which have a similar bearing. In Baker *v.* Portland (5 Sawyer 566. 1879) there was an Oregon statute which prohibited the employment of Chinese laborers on public works of the state. It was held by the court to be a discrimination in violation of the Chinese treaty. Dr. Corwin commenting upon the opinion in this case says:

> This decision is about as conclusive, I should say, as one could well ask of the general issue of the relation of the treaty power to State power. For if a State's power to determine whom it shall employ in the construction of its public works is limited by implied

stipulations of the national treaties, little ground would seem to remain for the doctrine of rights absolutely reserved by the States.[5]

If public health and sanitary activities should become matters of international regulation through conventions with other nations, it is quite possible that the treaty power may become a very important basis for national health activity. Thus far it seems to be a power of far-reaching scope with few limitations in other parts of the Constitution. But the further limits of the power can be found only after treaties which extend more and more into the usual activities reserved to the states, and which invade the rights of private property and personal liberty, are brought into the courts for adjudication.*

National War Power.—Of great significance, on occasion, to the health and sanitary agencies is the war power. When called into play by the declaration of hostilities it legalizes all acts of national legislation and administration designed directly or indirectly to further military success. Just what social and industrial activities are to be included under its ægis would be difficult to discover in advance. Since public health activities among both uniformed and civilian groups come clearly within its orbit, it is not neces-

* Hesitation in asserting the broad view of the treaty power is seen in the following extract from the Labor Section of the Treaty of Versailles, inserted, it is said, at the instance of the United States delegation: Part XIII Article 405 (in part)—"In the case of a federal State, the power of which to enter into conventions on labor matters is subject to limitations, it shall be in the discretion of that Government to treat a draft convention to which such limitations apply as a recommendation only, and the provisions of this article with respect to recommendation shall apply only in such case." See Geo. N. Barnes, *History of the International Labour Office,* London, 1926.

In the recent commercial treaty with Germany, on the other hand, the consuls of both nations were given power to inspect all vessels at ports within their districts destined for ports of the countries appointing them, with a view to the more effective enforcement of quarantine regulations and the issuance of bills of health. This is an important use of the treaty power in aid of public health. See Article XXVI, Treaty with Germany, *Treaty Series,* Dec. 8, 1926.

sary to examine at any length the judicial decisions regarding it. One instance, that of McKinley *v.* U. S. (1919. 249 U. S. 397), where the Supreme Court upheld an order of the Secretary of War forbidding houses of ill fame within five miles of an army post, will indicate sufficiently the generous interpretation put upon the sanitary aspects of the war power by the courts. Although in time of peace the war power is of little significance in marking out national health authority, during international conflicts, when sanitary problems are likely to require for their solution unusual activity and unusual coördination of effort, the area of power is automatically expanded to meet the emergency.

Power to Govern Territories and Indian Tribes.—A final constitutional basis for national health activity is the power given Congress to govern the District of Columbia, the territories, and the Indian tribes. This power is different in two respects from the powers described above. In the first place it is strictly limited to a certain few territorial areas; in the second place, the federal power within these areas is not specifically limited to enumerated objects, but is the general police power possessed by the American states within their areas.

The health authority in the territories thus includes the general police power possessed by states as well as that possessed under the clauses of the Constitution which we have described. To define the exact nature of health activity legalized under the police power of a state would be to open up a technical and detailed branch of constitutional law bristling with complexities.* Suffice it to say here that

* The review of state health legislation by the federal courts and, especially, the veto of state statutes by application of the due process clause of the Fourteenth Amendment might be considered to be a proper part of the task of defining the area of national health authority. But this national judicial veto on proposed state and local sanitary measures in the interest of property and personal rights is excluded from our discussion. For a thorough analysis of the state health powers under our legal system see J. A. Tobey, *Public Health Law,* Baltimore, 1926 (304 pp.); also E. Freund, *The Police Power,* 1904.

the regulation of individuals and commodities with the object of promoting the public health is universally recognized as a legitimate and constitutional function of states—also of the federal government in the District of Columbia and the territories. The only limits to such regulation are the general clauses maintaining the private rights of individuals —in the case of the national government the due process of law clause. Where the line shall be drawn between private property and persons, and public action interfering with persons and property in the name of sanitary protection, is marked out in a series of judicial decisions. Drastic quarantine, compulsory vaccination, and destruction of property are all permitted under the police power. Seldom do health authorities find themselves handicapped in the pursuit of their normal activities by the private rights' limitations.

In the District of Columbia and the organized territories these private rights, although not often invoked, do exist. In the insular possessions and naval stations, not yet organized as territories, the courts have in a few cases intimated that while full police power at the hands of federal authorities extends to them, some or all of the private rights do not necessarily accompany the power.[6] In the cases involving the dependencies the courts have been at pains to proceed case by case and to solve each problem as it arises rather than to enunciate any general constitutional principle regarding the limits or universality of private rights.

The legal position of the Indians in relation to the national government is peculiar. The Constitution does not grant Congress the power to govern Indian tribes in the same terms as it grants authority over the territories. The power given is rather that of regulating commerce with the Indian tribes. In the Kagama case (1886. 118 U. S. 375), which decided in favor of the law of 1885 extending a criminal code to the Indians on reservations, the Court admitted that "the relation of the Indian tribes living within the borders of the United States, both before and since the Revo-

lution, to the people of the United States, has always been an anomalous one and of a complex character"; and added, "the Constitution is almost silent in regard to these relations." In a rather unconvincing way the Court then proceeded to deduce the relationship from the wording of the commerce clause. But it arrived more directly at a reason for the relationship by an appeal to expediency. It said:

> These Indian tribes are the wards of the nation. They are communities dependent on the United States. Dependent largely for their daily food. Dependent for their political rights. They owe no allegiance to the States and receive from them no protection. Because of the ill feeling, the people of the States where they are found are often their deadliest enemies. From their very weakness and helplessness, so largely due to the course of dealing of the Federal government with them and the treaties in which it has been promised, there arises the duty of protection, and with it the power. This has always been recognized by the Executive and by Congress, and by the Court, whenever the question has arisen. . . .
>
> The power of the general government over these remnants of a race once powerful, now weak and diminished in numbers, is necessary to their protection, as well as to the safety of those among whom they dwell. It must exist in that government, because it has never existed anywhere else, because the theater of its exercise is within the geographical limits of the United States, because it has never been denied, and because it alone can enforce its laws on all the tribes.

In a leading case of earlier date, Worcester *v.* Georgia (1832. 6 Peters 515-536), involving the protection of a missionary to the Georgia reservation Indians against unfavorable state legislation, it was decided by the Supreme Court that federal power among the tribes was valid as opposed to state governmental authority. Although a recent Act (June 2, 1924) has granted full citizenship to all Indians on or off reservations (43 U. S. Stat. L. 253), previous decisions indicate clearly that the peculiar status of wardship is not diminished by this fact.[7] In asserting and maintaining federal police authority over the Indians the courts have

been silent in regard to the private rights' protections of the Constitution. According to *Thayer* the private rights of Indians are in much the same vague state as in connection with unorganized dependencies. To quote him:

> In dealing with the tribal Indians, the United States government has never proceeded on the theory that its action was restrained by the amendments, or by the like clauses in the body of the Federal Constitution.[8]

Summary.—We have now passed in review the various powers of the federal government which give a basis for national public health activity. The power of regulating interstate and foreign commerce, the power to tax articles, the power of appropriating federal money for many and varied purposes under the term "general welfare," the power of limiting or forbidding the uses of the national postal monopoly, the treaty-making power, the war power, the power to govern territories and the Indian tribes—together make an imposing domain in which national health activities may be developed. In some cases, as under the commerce power, action is limited by the due-process-of-law clause; in all cases federal action must bear, in the eyes of the courts, a relation to some substantive power given in the Constitution. When it is considered, however, that the written constitutional document was made at a time when no national health activity existed or was even contemplated, the legal area created under these powers granted primarily for other purposes is little short of astonishing. In consideration of the fact that the document is itself difficult of formal amendment the wisdom of the loose or broad construction of national powers as enunciated and practiced by Marshall is hardly questionable. The growth of health authority is only a part of the general process of expansion to provide for the increasing necessities of an industrializing state.

To some people it may have appeared that expansion of federal powers by legal concepts, playing through succes-

sive judgments of the courts, is undependable, unscientific, and awkward. To others it has seemed to be a valuable brake upon the centripetal forces of government and society so noticeable during the last century. Our study does not involve us in passing judgment upon these various attitudes. It is our principal task at this point merely to understand the nature of our constitutional definition of federal health powers. It may be added that, good or bad, the present constitutional limitations are likely to continue as a permanent element in our governmental system. Although rigid in form, the actual court interpretation is on an evolutionary basis and not so inflexible as to lead to any immediate heroic remedies. We may expect new administrative necessities in the field of public health to have an influence upon the Supreme Court which in some cases and to some extent will result in an accommodation to the need. On the other hand an occasional logically correct but inexpedient decision may so check administrative growth that it is likely to be reversed by the costly and slow process of textual constitutional amendment.

A general constitutional amendment relocating in a broad way the health powers between national and state governments is not impossible. It is, however, quite improbable. It is, moreover, decidedly questionable as a piece of political wisdom unless there is a well-established tradition in favor of the legislative and administrative redelegation of much of the health activity among the states and localities.[9] As has well been said, "The problem of federalism in the United States, adequately stated, is not so much a question of division of powers as it is a question of division of labor."[10] And the division of labor is a matter of piecemeal adjustment rather than of constitutional statement.

There are people who see in the judicial expansion of power a spirit of indirection which has about it something immoral or, at least, unworkmanlike. As Professor Freund has stated it, "A legislative policy can hardly be worked out

in a satisfactory manner if it has to sail under a false flag." [11] To attempt to abolish child labor by regulating child labor products in interstate commerce or taxing child labor employers is, to many, clumsy if not actually dishonest.

To such logically-minded persons, however, there must also be an even greater willful slothfulness, stupidity, and dishonesty in the many curious differences between what is legal and what is real in the British Constitution. In the momentous task of changing social institutions to meet changing needs it is arguable that it is sound policy to change realities under the cloak of existing and ancient forms. Form of action may be separated from intended purpose or result so long as intent is not concealed from the view of all except the blind priests and guardians of the ritual and form of institutions. Thus what at first seems a sort of intellectual scheming dissipates itself into a more genial kind of logic. In the light of pragmatic and evolutionary philosophy the method of step-by-step adjustments, within limitations of tradition, may, after all, furnish an eminently practical solution to the eminently practical problem of changing governmental machinery to meet newer needs. In expressing this viewpoint one must be aware, however, that it has little official acceptance as an explicit tradition or principle of constitutional interpretation in the United States. It is rather the viewpoint implicit in our constitutional machinery and the changing social forces within which our government moves.

CHAPTER IV

NATIONAL MEDICAL CARE OF THE MERCHANT SEAMEN

The first type of national medical activity long antedates the modern health movement and presents no important constitutional problems. Yet it is connected with certain characteristics of our system of federal division of authority. The national government, from the point of view of medical care, is not equal to the sum of the states. Some portions of the population, although not "without a country," were and are for practical purposes without a local community. By reason of isolation, constant travel, or special discipline, the merchant seamen, lighthouse keepers, life savers, revenue cutter crews, men of the Army and Navy, and inhabitants of naval stations are examples of this class of delocalized citizens. In a somewhat similar position are the Indians on their isolated reservations. So, also, the inhabitants of the District of Columbia, of the territories and insular possessions, although organized in localities, have been considered to be under the special protection of the national government. And more recently the sick and disabled survivors of war, as a matter of equity, have remained the wards of the national government. In each of these cases, with varying degrees of regularity and efficiency, the national government has furnished some substitute for, or augmentation of, the normal medical relief agencies of a local community. Thus the oldest function of government in relation to the citizen's health, that of providing by public means for relief of the sick, was early assumed by the na-

tional government in respect to certain groups under its care.

Creation of the Marine Hospital Service.—Among the first of these special groups to receive the attention of the central government were the merchant seamen. On July 16, 1798, a bill passed Congress (1 U. S. Stat. L. 605) providing for a system of compulsory sickness insurance for all American seamen, to be supported out of the seamen's wages, and creating for its supervision the Marine Hospital Service. From the debates in the House of Representatives it appears that the object of the framers of the measure was to obtain practical means of relief, without burdening the national treasury, for an improvident and needy class not well provided for by local relief agencies. The desire for economy rather than an appreciation of any particular merit in the sickness insurance method appears to have been foremost in the minds of those framing the financial provisions of the Act. The example of England, which had provided marine hospitals for its sailors, was evidently a precedent much relied upon by its sponsors, who were themselves eager to build up a rival merchant marine. Among its principal advocates in the House were representatives of the seaboard states, Mr. Livingston of New York and Mr. Pinckney of South Carolina.

Opposition to the bill appeared in the House, to be repeated later in debates over appropriations for the aid of the Service. Mr. Gallatin of western Pennsylvania objected to setting apart seamen as a separate, improvident class in need of federal protection. Mr. Sewall of Massachusetts, declaring that seamen were adequately provided for by the localities in New England, opposed the burden on seamen's wages as unnecessary. Objection was also made that the funds raised from the seamen would be wasted in the erection of costly hospitals without giving immediate relief to the contributors. The measure passed the House but by

no means unanimously; in the Senate there was no reported debate.[1]

Decentralization and the Spoils System.—The system of administration set up by the Act of 1798 was one of almost complete autonomy at each port. By its terms the President of the United States was authorized to appoint directors of marine hospitals at such ports as he thought proper, to administer aid and to direct the expenditure of the fund. But no direct appointments of such directors appear to have been made, "owing, probably, to the fact that no compensation was allowed except for actual expenditures incurred in the discharge of duties imposed by the Act." [2]

In place of special agents of the central government, the federal collectors of customs served as the principal field administrators of the Marine Hospital Service. They had the task of collecting the hospital fee of twenty cents per month from the masters of vessels—deducted from the seamen's wages. At ports where no marine hospital was maintained by the government the collector made arrangements with local medical and hospital agencies for the care of the sick seamen within his jurisdiction and disbursed the fund in payment for such medical and hospital aid.

Largely because the local collectors were employed as the field administrators in connection with their regular duties, the Secretary of the Treasury, by Act of May 3, 1802, was made *ex officio* Commissioner of Marine Hospitals. A clerk was placed in the Revenue Marine Division of the Treasury to supervise and to administer matters dealing with the Marine Hospital Service. Until 1871 this was the only administrative organization at Washington.

Several government hospitals were established during the first seventy years. The surgeons in charge of them were at first appointed directly by the President. But later they were officially appointed by the Secretary of the Treasury and held office at his pleasure. The appointment of hospital subordinates and the contracting for supplies were handled

by the local collector of customs, subject to approval by the Secretary of the Treasury. The actual operation of the appointments system was described by the Surgeon General of the Marine Hospital Service as follows in his report for the year 1882 (p. 41):

> . . . the appointment of physicians became a perquisite of the collector of customs and was viewed as such. No abuses or incompetence were likely to be exposed unless the collector was willing.
>
> Transfers of station were not customary, medical officers being appointed to a particular port, and not to the general service; hence, after appointment, they became engaged in private practice, not infrequently to the extent of neglect of the hospital patients intrusted to their care by the Government.

On the basis of the evident low standards of the marine hospital physicians, the lack of central medical supervision, and financial deficits, Surgeon Ruschenburger of the Navy, in 1848, appealed for the absorption of the marine hospitals into the Navy hospital system. At this time the physicians in charge of the marine hospitals were receiving $1,000 a year while the surgeons in charge of Navy hospitals were receiving $2,500 a year.[3] Dr. Ruschenburger described the defects of the Service thus:

> The physicians of marine hospitals in the United States, it is believed, are generally changed with every administration of the general government at Washington. They serve no apprenticeship in the service. . . . The arrangement of appointments and contracting out for hospital supplies places considerable patronage at the disposal of the Treasury Department and of Collectors, if they be pleased to avail themselves of it for political purposes.[4]

Early Hospitals and the Pork Barrel.—One of the provisions of the Act of 1798 allowed accumulated funds from the seamen's dues to be used for the erection of marine hospitals. It was this provision which aroused the fear, expressed early in House debates, that the seamen's wages would be wasted in the construction of costly hospitals rather

than expended in immediate practical relief. During the first few years of the Service these fears were not realized. But other evils, which reflected the inefficiencies of governmental management during this period, did develop. Although the first marine hospitals were financed out of the surplus marine hospital funds they did not err on the side of elaborate construction. The Secretary of the Navy in 1810, describing one of them, said:

> To give you some faint idea of what is called the hospital at this station, imagine to yourself an old mill, situated upon the margin of a mill-pond, where every high tide flows from twelve to fifteen inches, upon the lower floor, and there deposits a quantity of mud and sediment, and which has no covering to protect the sick from the inclemency of the season other than a common clapboard outside, without any lining or ceiling on the inside.[5]

Hospitals of some sort were maintained by the Service at the principal Atlantic ports:—Boston, Norfolk, Charleston, and Newport.* In other places the local collector of customs made contracts ratified by the Treasury Department, with local hospitals or almshouses wherever they existed, and where they did not—

> . . . with private individuals and physicians, for subsisting and attending such sick or disabled seamen as might claim from the collector the benefits of the law. The nature and quality of the accommodations procured by collectors varied at different ports, as a general rule; and the degree of comfort afforded to the sick sailor was as unequal as the prices paid, but never in proportion.[6]

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* An experiment in coöperative national and city control was made during the eighteen thirties in Charleston, South Carolina. A marine hospital, constructed by the Treasury Department, was leased to the city. The city authorities were given charge of hospital relief to seamen and were allowed to collect a local tonnage tax to defray its expenses. The records of the experiment are not available, but Supervising Surgeon Woodworth, in a review of the Service contained in his 1872 report (p. 9), remarked ". . . it appears not to have been attended with happy results, as seamen made complaints to the Department that they had been discharged from the hospital and the rooms appropriated to other purposes."

Not even local accommodations could be utilized on the western frontier where towns, springing up on the banks of the Mississippi, the Great Lakes, and their tributaries had only meager accommodations for the sick.

> . . . from one port it was reported that no better place could be afforded to sick seamen than the warehouses and deserted tenements along the wharf; from another, that they had to be sent to the city almshouse, which was also connected with a penitentiary for common vagrants and petty convicts; and from another, the sad story was told that seamen, sick with various diseases—cholera, smallpox, etc.—were often forced promiscuously into the same chamber, where the dying and the dead were alike neglected.[7]

The boatmen operating on these "western waters" were in especial need of medical relief. The voyages from North to South and back again on the Mississippi exposed boatmen and travelers to the yellow fever and cholera epidemics frequently appearing at the Southern ports.

> The numbers who perished in the long-descending voyages of the flat-bottomed boats which left the upper waters of the Mississippi and its tributaries, in summer and early autumn, to find a market for the fruits of their toil, at New Orleans, was very great. Nothing was more common than for two out of the five hands who generally managed these boats to die; and it sometimes happened that the whole crew perished from disease, and that the boat with its cargo was left deserted.[8]

The cholera epidemics of 1832 and 1834 caused much hardship along the Mississippi. Pressure upon Congress from the interior cities finally led to the extension of the Marine Hospital Service facilities. The national government's problem here was a difficult one. The number of sick seamen at any one port was so small that the overhead cost for the maintenance of a separate marine hospital, if erected, would be excessive in comparison with either public or private hospitals at larger ports. The commerce was of such rapid development that it was hard to predict at what point a government hospital could best be permanently lo-

cated. Evidently it was a case in which the national authorities were obliged to assume a fiscally undesirable undertaking because of the inadequacy, for similar reasons, of local and private hospital provision. Since there was no medical staff in the Treasury Department to assign to the solution of this problem, Congress, by an Act of March 3, 1837 (5 U. S. Stat. L. 189), authorized "the Secretary of War to appoint a Board of Medical Officers of the Army to select and purchase sites for marine hospitals on the Mississippi and Ohio Rivers and Lake Erie."[9] This Army board selected seven sites on which, with the single exception of Wheeling, West Virginia, hospitals were erected between the years 1845 and 1851 under the direction of the Secretary of War.

This second series of marine hospitals was erected not from the surplus in the governmental hospital fund, but from Congressional appropriations. Unfortunately the careful and comparatively nonpolitical location of the seven hospitals by the military board was not a binding precedent upon Congress. The way was opened for a period of reckless and unscientific building in which the hospital joined the post office, federal building, and harbor improvement as parts of the Congressional pork barrel.

Two hospitals were built at New Orleans at different times, both badly located, one in a swamp. The hospital at Pittsburgh was placed with a blast furnace on one side and a rolling mill on the other, so that no matter which way the wind blew the building was continuously filled with soot and smoke. The hospital at Napoleon, Arkansas, ended an idle existence by being ingloriously washed into the river. Several hospitals, as, for instance, the buildings erected at Ocracoke, North Carolina; Evansville, Indiana; Vicksburg, Mississippi; Burlington, Iowa; St. Marks, Florida; Burlington, Vermont; Wilmington, North Carolina; and Galena, Illinois—seem to have derived their origin more from their

proximity to the abodes of members of the Congressional committees on appropriations than from their strategic value for the assembling of sick sailors. Senator Trumbull of Illinois, in the debate over reorganization of the Marine Hospital Service in 1870, pointed to the example of the Galena hospital, which, though it had an average of only one or two patients per year for the four years preceding 1870, was equipped and maintained for forty patients. In the same debate the location and construction of marine hospitals as a part of the Congressional pork-barrel system was condemned by Senator Howe of Wisconsin in the following language:

> If there has been one inexcusable, intolerable abuse in the public expenditures of this country it has been in the matter of building marine hospitals. . . . It was a favorite mode of starting a new town in the West, if it was anywhere on a stream or a good-sized puddle, to get an appropriation for a marine hospital.[10]

But before 1870 the reaction against the construction of these fresh-water hospitals had set in. The Western localities were developing rapidly and had begun to build and maintain their own hospitals. The sick and destitute river boatmen, therefore, were not left without any provision. Thus the *bona fide* demand for government hospitals on the Mississippi considerably abated. In time, members of Congress and administrators in the Treasury Department became impressed with the abuses connected with the hospital system. Secretary of the Treasury Guthrie in 1854 appointed a special department inspector to visit all the marine hospitals. In his report the inspector, Mr. William Gouge, commented on the existing system as follows:

> In some towns there appears to be a desire, on the part of some of the inhabitants, to have marine hospitals erected, not because they are actually wanted for the relief of sick sailors or sick boatmen, but simply that additional sums of public money may be there expended. If this feeling be not checked, we shall have

sinecure surgeons, sinecure stewards, sinecure matrons, sinecure nurses, without number. We have too many such already.[11]

In place of the existing policy Mr. Gouge advocated the extension of the earlier contract system—that is, the disposition of hospitals then in government possession by lease to contractors who would care for government patients at a stipulated rate. For towns with no government hospitals or adequate local institutions he recommended the encouragement of local construction by an advance engagement of the Marine Hospital Service to pay a fair price for marine relief at that place. And where the construction of a local hospital could not be secured he advocated setting aside special rooms in boarding houses as a cheap and handy device. The Secretary of the Treasury included these recommendations in his annual report to Congress in 1855.[12]

The Gouge program, which stressed the financial rather than the human side of the medical care of seamen, gradually gained weight in Congress. A number of the smaller hospitals in the South were destroyed during the Civil War, ridding the Government of embarrassing encumbrances. These hospitals were not rebuilt. After the Civil War a measure was passed compelling the sale of the remaining small hospitals. The entire problem of hospital construction by the national government, as opposed to the contracting-out of patients, was, as we shall see, considered at length in the debates over the proposal in 1870 to reorganize the Marine Hospital Service.

Contributory Insurance and Deficits.—A difficulty more continuously evident than either the unwise construction of hospitals or their inefficient operation by political employees, was that of keeping the marine hospital fund solvent. The organic Act of 1798, as we have seen, provided for a tax of twenty cents per month on all seamen employed on American vessels engaged in the foreign and coasting trades. This tax, received by the collectors of customs, constituted a gen-

eral fund to provide for the temporary relief and maintenance of all sick and disabled seamen by whom the tax was payable.*

One year after the creation of the marine hospital fund the newly-organized Navy was brought under its provisions also, the Navy personnel being taxed in the same way as the merchant seamen. This consolidation evidently did not prove satisfactory to the Navy; at least none of its men seem ever to have participated in the marine hospital benefits. In 1811, therefore, a law was passed (2 U. S. Stat. L. 650) dividing the fund and organizing a separate naval hospital fund, with an original endowment of $50,000—the Navy's estimated share of its contributions from 1799 to 1811. The twenty-cent monthly fee was continued for its maintenance. Because there was a complete control of the pay rolls of the beneficiaries, because of the fact that the undrawn rations of the sick were also credited to the fund, and because of the fact that the salary of Navy medical officers came from general appropriations, the separated hospital fund was more than sufficient to care for the sick seamen of the Navy. By 1848 a surplus of $200,000 had accumulated, which in 1844 was invested as the beginning of an endowment. It long survived the marine hospital fund and exists still as a sickness insurance system attached to the naval medical service.[13]

The marine hospital fund proper did not encounter such prosperous days. Its advocates of 1798 had hoped for it a similar career: that current expenses for medical relief would be met adequately by the hospital dues collected from the seamen, that a surplus would accumulate to be invested at interest which, with donations and gifts, would form an

* By an extreme concession to New England localism, an amendment was passed in 1799 (1 U. S. Stat. L. 729) providing that the hospital money collected was to constitute a separate fund in each collector's district. This was found to be impracticable and was abandoned by an amendment passed in 1802, which reconstituted the hospital money collections as a general fund.

endowment or would be used from time to time for the erection of marine hospitals. But the income from seamen's wages did not prove large enough even to meet expenses. We have seen that there was little or no central supervision of the work of the politically appointed local collectors. Since the collector had no medical training, it was easy for the sailor to malinger and thus to increase costs. It would have been extremely difficult, even had there been adequate central supervision, to get a complete, accurate accounting from the masters of vessels from whom the dues were collected. Because of the lack of adequate centralized accounting many seamen not entitled to benefits received relief. In 1848 the number of seamen and boatmen for which ship masters were legally liable to pay the hospital fee was estimated to be about 160,000. The actual number for whom it was paid during that year, as shown by the total hospital receipts, was slightly less than 40,000.[14] The rapid rise of hospital receipts following the inauguration of more adequate central supervision after 1871 suggests the laxity of collection and administration of the fund during these unregenerate years.

In order to keep from bankruptcy the marine hospital system had to balance its account either by refusing relief or by increasing its income from other sources. Both methods were used. Some of the ways in which medical aid was curtailed are revealed in a spirited, bombastic pamphlet entitled, *Memorial of the Seamen of New York*, which was addressed to Congress, January 28, 1822:

> The number of seamen who enter and depart from this harbor varies with the fluctuations of commerce; one year may show a list of one thousand sick and disabled seamen; another may show two thousand. And yet a regulation has been made, and rigidly executed, by the agent of the Government, that no more than sixty seamen can be received into the New York hospital. . . . Seamen, who have paid hospital money for twenty years and more . . . are compelled, in the dark and desolating hour of sickness and misfortune, to ask for relief at the doors of the hospital, and to ask

in vain. . . . The Government have thought proper, also, to say, through their agent in New York, to the seamen who sail into her port, "You shall not be in our hospital more than four months, nor shall you be there at all if suffering under venereal diseases, or if afflicted with mania, or if there is no hope of your recovery."

This statement concerning the cramping restrictions placed upon hospital treatment is corroborated by Supervising Surgeon Woodworth, reviewing the marine hospital fund in his first annual report (1872, p. 9). He says:

Nearly every letter of the Department written during the above period (1798-1838) and later, in relation to relief, enjoined upon Collectors to keep expenditures of the fund within the lowest limit. With such meager compensation, only the poorest fare and accommodations could be expected, and in many instances, no others were furnished.

He adds that for financial reasons the refusal of hospital and medical aid to seamen with incurable or permanent disabilities had to be resorted to. Such a program of economy vitiated, if it did not completely destroy, the element of security which is the essence of any sound system of sickness insurance. But drastic as it was, it did not make both ends meet. The additional means of relief was soon sought —that of occasional deficiency appropriations from Congress. After 1840, such appropriations became regular rather than occasional, ranging from $12,000 to $275,000 per year, depending upon the program of hospital construction. By 1870 it was evident to all that on its existing basis the Marine Hospital Service was not self-supporting.

The Reorganization of 1870.—By the close of the Civil War it became obvious to many inside and outside of Congress that the cure for the failures of medical aid to seamen was in a reorganization of the Service. Successive Secretaries of the Treasury had taken up the problem, but without being able to carry through any comprehensive plan of reform. As early as 1837 Secretary Levi Woodbury had recommended that marine hospitals be placed in charge of the

medical officers of the Navy. In 1848 Surgeon Ruschenburger of the Navy Medical Department, as we have noted, urged this recombination of marine hospital and Navy hospital services with a tonnage tax in place of the seamen's fees to support the Service. These suggestions came to naught. We have seen also that in 1854 Secretary of the Treasury Guthrie recommended a rather comprehensive change in hospital construction policy. The decline of the American merchant marine, due to the replacement of clipper sailing vessels by steamships, reduced the number of sailors requiring governmental care. Secretary of the Treasury Boutwell, shortly before 1870, actually recommended the entire abolition of the Service. In such a situation some drastic reorganization was needed.

During its first seventy years of activity the Service had acquired practically all the administrative disabilities associated with Jeffersonian and Jacksonian democracy: its personnel was the object of party spoils; its purchase of supplies was an adjunct to party machinery; its decentralization and lack of central supervision were almost complete; its hospitals were a part of the annual distribution from the Congressional pork barrel; as a means of governmentally-supervised sickness insurance it was a fiscal failure requiring annual doles from Congress to keep it solvent and functioning; on account of enforced parsimony it was also very far from offering any guaranty of medical aid to the sailors even at the principal ports.

The general nature of the service rendered was described by Dr. John S. Billings of the Army Medical Department, who was detailed, in 1870, by request of the Secretary of the Treasury to collaborate with Dr. Stewart of the Treasury Department in making an inspection and examination of the marine hospitals. Dr. Billings said in his report:

> The Regulations of the Treasury Department are a dead letter, each port being more or less a law unto itself. . . . The system of inspections is rarely carried out. . . . The majority of the

patients at the Cleveland hospital (a typical hospital of the service) are dissatisfied with their medical treatment, and complained with regard to the quality and quantity of the food given them. Mattresses filthy, no bedspreads, no surgical instruments . . . no seamen treated at dispensaries; out-patients admitted to hospital, one day accounted for, even for the most trivial complaints.[15]

Largely as a result of the Billings-Stewart report, the main features of which were transmitted to Congress by the Secretary of the Treasury, a bill for the reorganization of the Service was introduced into Congress February 21, 1870. It aimed to eliminate the evils of spoils, waste, and financial deficit by two means: an increase of expert central supervision and a larger seamen's fee.

There was considerable debate in the Senate over all the provisions of the bill. Some Senators, mainly from inland states, repeated the arguments used at the inauguration of the Service in 1798—that the tax, which it was now proposed to increase to sixty cents per month, was a paternalistic and unjustifiable interference with the seamen's independence. Others, principally from the seaboard states, held that the sixty-cent tax was too heavy to be borne by the seamen and that the national government should assume the whole burden of hospital and medical aid to this commercially valuable but improvident class of workers. The latter argument was effective in securing an amendment reducing the proposed monthly fee from sixty to forty cents. Senator Chandler, in charge of the bill, assured the Senate that as amended the 100-per-cent increase over the existing rate would make the Service self-supporting.[16]

Expert centralized supervision to reduce waste in hospital construction and management was provided for by the creation of the office of Supervising Surgeon. As originally introduced the bill stated that the President might detail a medical officer of the Army or Navy to report to the Secretary of the Treasury and to act as Supervising Surgeon of the Marine Hospital Service. In case of no detail it was

provided that the Secretary of the Treasury might appoint a surgeon to this position at a salary of $2,000 a year. In the Senate an objection to the provision of detailing a military medical officer to the task resulted in its elimination. As amended the bill passed the Senate, was adopted in the House without debate, and became law June 29, 1870 (16 U. S. Stat. L. 169).

A Merit System and Central Supervision.—In the Secretary's report for 1870 it was indicated that if the reorganization should be adopted, Dr. Billings or some other experienced military medical man would be appointed to the chief post of Supervising Surgeon. Because of the elimination of the clause providing for a detail of a military officer it was necessary to choose a civilian for the task. Dr. John M. Woodworth, who had served as a surgeon of volunteers in the Civil War, and who at the time of his appointment was a health officer in Chicago, was selected for the position. He at once established a central office in the Treasury Department at Washington consisting of two lay assistants and one medical subordinate, and set about making comprehensive improvements in the Service. Eventually these included more adequate supervision, a nonpolitical personnel, a scientific hospitalization policy, and a reorganization of financial operations so as to make the hospital fund solvent without Congressional aid.

An immediate step toward efficiency was the creation of a merit system for the choice and the promotion of personnel. The national government had not yet inaugurated the Civil Service Commission with its system of examinations. But Dr. Billings, the Army surgeon, had recommended in his 1870 report the adoption of the Army personnel organization with which he was familiar. This plan consisted of medical examining boards for entrance to the lowest grade of permanent commissioned officials, regular grades for promotion by means of examination, seniority, and dis-

tinction of service, and appointment to the general service instead of to a particular post or locality.[17]

The beginnings of this system Dr. Woodworth put into practice by revised regulations for the Service issued in 1873.* Examinations for appointment were held at that time. From then on there was gradually built up a corps of medical officers in charge of the marine hospitals, recruited largely from young medical graduates who, after passing a professional examination, served an apprenticeship in minor positions in different localities (including, after 1882, quarantine and public health work as well as hospital administration). They advanced regularly in the line of duty so that heads of the principal marine hospitals and the head of the entire Service at Washington were officers who had devoted their whole time to their particular professional task over a long period of years. In such a personnel system there might and did develop the evils of bureaucracy. But it was an indubitable improvement over the service rendered by the political, part-time doctors of the days before 1873. Several times during the early years there were attempts to break into it by partisan pressure. But in 1889 Congress granted the oft-repeated requests of successive Surgeons-General that the examination system be sanctioned and fortified by law and the officers commissioned by Presidental appointments (25 U. S. Stat. L. 639).

A similar system of examination and promotion under the title of hospital steward was soon applied to the more technical subordinate staff. After the establishment of the Civil Service Commission in the 'eighties, the other employees of the Marine Hospital Service were gradually brought under its system of examination and promotion. In none of the non-commissioned grades, however, did there develop the same opportunity for permanent tenure,

* The Regulations issued in 1879 (par. 24-26) expanded the number of grades and made more complete provision for the Service personnel system.

with regular promotion to the higher grades, that existed in the commissioned personnel. This remains one of the difficult personnel problems of the Service today.

The professionalization of the Service personnel was in itself a factor promoting more uniformity and adequacy of central control. The moving of officers from hospital to hospital tended to develop standardization of administration. More direct steps toward uniformity and central control, however, were taken by Dr. Woodworth. Beginning in 1873, he instituted periodic inspection of hospitals by dividing the relief stations into eight districts, with the medical officer at the principal port in each district as the medical inspector of that district. Dr. Woodworth stated in his report for the year 1877 (pp. 11-12) that so far as conditions permitted he had visited the various stations of the Service; to places he had not visited, other medical officers had been detailed for inspection. In the course of ten or fifteen years there was inaugurated annual inspection of every hospital and station, reported on uniform blanks, and carried out as an adjunct to the regular duties of the principal medical officers.

This method of inspection sufficed until our participation in the World War (1917-18) necessitated the rapid expansion of the hospital facilities of the Service to care for discharged disabled war veterans. While the expansion was under way there was much criticism of the inefficiency of the facilities being afforded the veterans. As a result a separate specialized inspection service in the Division of Marine Hospitals and Relief was created (February 16, 1920). By a Service regulation August 29, 1920, it became the General Inspection Service, separately organized with an assistant surgeon-general at its head (although he did not need to be an officer of this rank), a corps of special inspectors with headquarters at Washington, and fourteen field inspectors in as many zones. After the transfer of the veterans' work to the Veterans' Bureau a year later the

number of districts was reduced to six and the position of chief inspector was eliminated. The inspection service remains independent of any division of the Bureau, includes in its purview all of the Bureau activities, and reports directly to the Surgeon-General.

The Elimination of Contributory Insurance.—The reorganization of 1871, which led to such distinct improvements in personnel and centralized supervision, brought about a revision of the administration of the hospital fund also. Dr. Woodworth first attempted to secure more complete collection of the seamen's tax. Regulations were issued which provided for a stricter accounting of the hospital collections; experiments were made with different methods of collection; Congress amended the law so as to define more accurately which seamen were liable for the payment of the tax, eliminating some loopholes through which masters of vessels had formerly escaped in explaining past nonpayments; foreign seamen, previously cared for at a flat rate below the actual cost of maintenance, were charged actual cost. As a result of these efforts and the increase of the rate, the income from hospital dues increased materially during the 'seventies.

The new Supervising Surgeon attacked also the problem of reducing expenditure without decrease of efficiency. Outdoor and dispensary relief was inaugurated wherever practicable in place of the more expensive hospital relief. Malingering was reduced by requiring more complete reporting on individual cases from the stations, and by relying upon medical opinion rather than upon that of the customs officer in granting applications for admission and discharge. In 1878 physical examinations were offered by the Service gratuitously in order to obtain better risks under the insurance system. These examinations, however, were never generally extended or made compulsory.

As a result of these savings and the increase of revenue, the receipts of the fund in 1877 for the first time in many

years equaled the expenditures. The improved management following the period of reorganization was reflected more accurately in the lower *per capita* cost for care of the seamen. Such a favorable showing was not secured, so far as the record indicates, at the expense of less adequate relief; nor is there evidence that it was obtained by charging Service expenses to other funds. Indeed, in 1876 the expenses for general building repair of the marine hospitals began for the first time to be charged directly to the marine hospital fund.

The solvency of the fund, however, was short-lived. Yearly deficits began to appear in 1878 and 1879. By 1883 it seemed clear that the system of complete contributory sickness insurance for seamen was not fiscally successful. In 1870 the hospital dues had been raised to what was thought by Congress to be the highest point that sailors could afford to pay. Central supervision had introduced several economies and stricter accounting. But still the revenue did not equal the expenditures. As an insurance scheme there had developed actuarial disadvantages. The income not only failed to meet the outgo over a period of years, but the curves of fluctuation tended to diverge rather than to converge. That is to say, a winter of maritime unemployment meant smaller total dues; it meant also, invariably, more illness among sailors, with a consequent greater demand for hospital facilities. Such fluctuations could be tided over only by building up a surplus or reserve fund, making the fat years pay for the lean. But during the eighty-five years' existence of the fund this had not been done.*

The original Act of 1798, it is true, had provided for the

* During 1878-79 a surplus of $150,000 was accumulated in the Treasury to the credit of the marine hospital fund and the Surgeon-General recommended that it be invested in United States bonds, the interest to be credited to the fund. But as the Secretary of the Treasury refused to act without the authority of Congress the surplus was soon dissipated and the proposal came to naught.

building up of a surplus and its investment in United States securities. But after the first accumulations, which were spent in hospital construction, there were no surpluses to be invested. The national government, on the other hand, never frankly accepted a contributory part in the maintenance of the fund; and no attempt was ever made to graduate the dues according to past expenditures, as is the practice of private insurance societies. At no time was the problem ever approached from the viewpoint of the principles of insurance; nor were the seamen themselves ever asked to coöperate in working out a more practicable system.

In 1884 the seamen's contributions for medical relief came to a quiet end. As a part of a comprehensive shipping law, aimed at the removal of restrictions on commerce and at the rehabilitation of the American merchant marine, the marine hospital tax was abolished along with other maritime taxes, fees, and dues. The original bill proposed the maintenance of the Service hospitals out of general appropriations. But by one of those curious compromises between sectional economic interests, so familiar in Congressional history, a tonnage tax was retained at a reduced rate and its proceeds devoted to the maintenance of the marine hospitals. Thus shipping generally, rather than the seamen individually or the general fund of the Treasury, was made to pay for the medical relief of sailors.[18]

For several years the tonnage tax proved more productive than the tax on sailors' wages. But beginning in 1882 the Marine Hospital Service gradually assumed quarantine and other general public health functions—all of which were supported from general appropriations by Congress. When, therefore, for commercial reasons, Congress abolished the tonnage tax entirely by Act of March 3, 1905 (33 U. S. Stat. L. 1217), it was a natural step to abolish also the separate marine hospital fund, and to establish the support of seamen's hospitals and medical relief by regular appropriations. Thus the financial problem, if not solved by Dr.

Woodworth after 1871, gradually solved itself through the extinction of the insurance system and its replacement by direct governmental medical relief.

Modern Hospitalization.—Probably the most difficult task faced by Dr. Woodworth in 1871 was institutional, not financial—*viz.*, the problem of governmental hospital construction and operation as opposed to contracting out for seamen's medical relief. In his second annual report issued in 1873 (p. 19) Dr. Woodworth referred in the following language to the fiscal advantages of the contract system:

> Under the old system of furnishing hospital relief by contract with the lowest bidder, it occasionally happened that the *per capita* cost of relief so furnished at a given port was less than the cost in marine hospitals built and maintained by the Government at adjoining ports. Such an impression was this apparent economy allowed to produce in the incidental attention then paid to the Service, that a sentiment of decided opposition developed against the construction and maintenance of hospitals by the Government.

But he pointed out in the same report that this comparison was too often one between cheap and inefficient service under contract, and more expensive but better service in governmental hospitals. He therefore adopted a middle-of-the-road policy, recommending the leasing of marine hospitals at small ports with special arrangement for the care of seamen, at the same time securing the construction of government-owned hospitals at large ports such as New York. The earlier proposals in favor of consolidating the institutions for governmental medical relief under one federal agency were not renewed by him or by others until, as we shall see later, the emergency of the War in 1917-18 made it a plausible solution of an acute hospitalization problem.

The hospitals constructed during the régime of Surgeon-General Woodworth, and several years thereafter were for the most part of the pavilion type.* The hospitals them-

* The Chicago hospital of 1873 and the San Francisco hospital of 1875 were exceptions to this program, being of permanent construction.

selves were built of wood (although adjacent buildings containing heating apparatus, laundry, etc., were of permanent construction) and were intended to last for ten or fifteen years only. The pavilion construction was designed to reduce the evil of "hospitalism"—that is, the danger of having the wards become breeders of disease. With the discoveries of Pasteur, Lister, and Semmelweis, however, this fear was eliminated. The Savannah hospital built in 1901 was constructed of fireproof material, as was the New York hospital of 1902. From that time on the construction of brick and stone hospitals permanent in type throughout was adopted.

At the present time (1926) there are in operation twenty-three marine hospitals at the principal ports. In other places there are one hundred and twenty relief stations where medical relief to seamen is administered by Service officers by means of out-patient service or by contract with local hospitals and clinics. More adequate medical and financial supervision of contract hospitals has by this time removed to a large extent the former evils of the contract system. Often the relief at local stations is in charge of, or under the direction of, a commissioned officer of the Service on duty for other purposes in the locality.

After 1870 a hospital problem of increasing importance was that of securing specialized treatment for particular diseases requiring separate institutional arrangements. The problem of the insane was met in 1875 by an Act of Congress which provided for the admission of such seamen beneficiaries to the Government Hospital for the Insane at Washington, D. C. Their care was to be paid for out of the marine hospital fund. This arrangement has continued to the present, furnishing one of the few examples of the consolidation of governmental institutional facilities according to specialized function.

The problem of tuberculous seamen was met in 1899 by the establishment of the Fort Stanton Tuberculosis Sana-

torium, under the ownership and management of the Service. It has been maintained with a farm in connection which serves as a means of saving money and of providing a vocational and rehabilitation interest for the seamen transferred there.

These two types of specialized treatment were partial solutions also of an institutional problem which appeared prominently in all of the early reports of the Service after 1870—that of furnishing proper care for the permanently disabled, aged, and infirm. Temporary relief only had been provided for in the original Act of 1798, and during the early years of the Service financial stringency caused this limitation to be given a strict interpretation. In consequence, permanently disabled seamen, when in such condition as to be no longer capable of benefiting physically by hospital treatment, were discharged, often to become the beneficiaries of municipal or private charity, or to be admitted to private institutions known as sailors' "snug harbors." Frequently the fact that they were not local residents excluded them from both of these means of relief. Recommendations were repeatedly made for a national "snug harbor," but none has ever been created. In consequence the need has been met—as far as it has been met at all—by public and private local institutions. Hospital and institutional problems, as we shall later see, had to be considered anew by the reorganized Service in the emergency of World War relief. But it can safely be concluded that since 1871 the gross defects and inefficiencies which characterized the unreformed system have gradually been removed.

Preventive Medicine and the Seamen.—Along with the rehabilitation and reorganization of its hospital work after 1870 the Marine Hospital Service was assuming other functions which gradually came to absorb its attention. These newer functions—national and interstate quarantine, scientific research, collection of sanitary reports and statistics—had to do with the prevention rather than the cure of

sickness. Interest in preventive work was reflected to some extent in the care of seamen. Occasional articles appeared in the annual reports dealing with the prevention of illness among seamen, the necessity for better sanitary conditions on shipboard, and provision for government supervision of medical treatment on ships. Aside from these incomplete measures and sporadic efforts at a preventive policy, such as vaccination of boatmen, there seems never to have been developed a thoroughgoing program of public hygiene and preventive medicine dealing with the merchant seamen. Perhaps this fact is adequately explained by the difficulty encountered in controlling the personal hygiene of the individual seaman and the hindrances to adequate administrative supervision of maritime sanitation. Under easier conditions of administration the Army and Navy developed much more adequate policies of prevention and control over the typical seamen's diseases, such as the venereal and pulmonary ailments. The public health energy of the Service apparently has been directed into channels different from, and more general than, its relief work for merchant sailors.

An exception is to be noted in the case of the seamen employed by the federal government itself.* Beginning

* The original law of 1798 and the law of 1870 failed to include such seamen in the marine hospital relief system. By an amendment in 1875 the seamen employed by the Lighthouse Service and the then Revenue Marine Service were brought under the Marine Hospital Service relief. In 1915 keepers of lighthouses were included. In 1884 employees of the Mississippi River Commission; in 1891 men on vessels of the Engineer Corps of the Army; in 1898 seamen of the Coast and Geodetic Survey (then Coast Survey); in 1894 keepers and crews of the Life Saving Service; in 1894 Navy seamen isolated from a naval hospital and near a marine hospital; in 1909 civil employees of naval auxiliaries, were admitted to the marine hospital privileges. Later seamen employed on Army transports (not enlisted men) and officers and crews of the vessels of the Bureau of Fisheries were admitted. These groups now include practically all of the employees of the national government whose work corresponds to the merchant seamen. During war time enlisted men have been admitted to the marine hospitals under contract arrangements between the departments concerned.

in 1875 members of the Life Saving Service were given not only medical relief similar to that of merchant seamen, but free examination for entrance, promotion, and retirement, and free instruction on methods of resuscitation by officers of the Marine Hospital Service. Since 1915, when this organization was joined with the Revenue Cutter Service to form the Coast Guard, a rather complete system of state medicine administered by the Public Health Service has been continued and developed for the personnel of the consolidated bureau—including examination for entrance, periodic physical examination, free medical relief and hospital care, the services of medical officers of the Public Health Service on board ship, advice as to sanitation of Coast Guard property on land and afloat, and a system of old-age pensions. A probable reason for the extension of preventive work to this group of governmental employees is found in the similarity of their work to military and naval services. The fact that the Coast Guard and Public Health Service happen to be in the same Cabinet department may be another cause.*

Although preventive work was not extended broadly to the merchant seamen, the marine hospitals have occasionally

* The personnel of the Coast Guard has increased rapidly during the last two years. Physical examinations have been extended at various times to other governmental services, namely, Coast and Geodetic Survey in 1899, Naval Collier applicants in 1901, Lighthouse Service in 1881, Post Office applicants in 1903, Immigration Service applicants in 1904, Isthmian Canal Commission (now Panama Canal Zone Service) in 1904, Philippine service in 1905, Alaskan Engineering Commission in 1917, Shipping Board in 1918, Bureau of Education (certain field positions) in 1917. Beginning in 1880, compulsory examination of all applicants for marine pilot licenses were given by the Service for the Steamboat Inspection Service, and examination of applicants for compensation under the Federal Employees Compensation Act for the Commission. This work of physical examination grew from a total of 7,983 in 1914 to 41,185 in 1919. In 1920 there were about 450,000 examinations in addition to the total for 1919, the increase representing examinations of beneficiaries of the War Risk Insurance. In 1926 it was reduced to 91,553. Each year sees some increased use of Service facilities for this work.

been used for other purposes than medical relief. By an Act of March 4, 1911, it was provided that the Service might take special cases into the marine hospitals for scientific study. In this way the hospitals have been used for field investigations into the cause and prevention of various diseases. Thus the Mobile, Alabama, hospital has been employed for malaria field research; the Savannah, Georgia, hospital for pellagra work; and the Wilmington, North Carolina, hospital for the study of parasitic diseases.

Summary.—The evolution of governmental medical aid to seamen is more than anything else a reflection of the possibilities of governmental administration at different periods in our history. One must be extremely careful in drawing general conclusions from either its failures or its successes. Viewed narrowly, it is the history of an administrative and fiscal failure at governmentally-supervised sickness insurance for seamen. But this failure can hardly be ascribed to the innate incompetence or perversity of governmental human nature. Rather, its main defects may be ascribed to the administrative devices of frontier democracy: the spoils system, the pork barrel, and extreme decentralization.

Nor should it be overlooked that by a combination of Congressional and administrative effort a striking rehabilitation of the Service was effected after 1870 by which most of the grosser evils, such as the spoils system, favoritism in contracts for supplies, and partisan manipulation of hospital sites, were largely eliminated and the financial support put upon a stable basis. Gradually there has evolved a reasonably efficient organization for the care and treatment of seamen.

In spite of this considerable improvement the experience of the Marine Hospital Service (now Public Health Service) in the care and treatment of seamen has left unsolved some important administrative problems. Chief among them is that of meeting the emergency of rapid expansion during

and after a war. Closely connected with this is the institutional or hospitalization problem. Shall the Government in the care of its wards rely on private institutions for all or for part of its hospital cases? If not, how shall the government hospitals be so planned that, with the fluctuations in numbers of patients, there will not be a large number of empty beds? Is this latter problem to be met by consolidating all government hospitalization agencies, or do the advantages of separate control and discipline over such groups as seamen, the Army, and the Navy outweigh the advantages of consolidation? If there is constantly greater need of specialized hospitals for more adequate treatment of certain diseases is it to be met by contracting out to private special hospitals, by the operation of specialized government hospitals serving all the official national agencies, or by the separate construction and operation of special hospitals? By what administrative mechanism can preventive medicine be combined effectively with curative medicine in the handling of scattered civilian groups? No one of these important questions has been finally answered by the experience of over a century and a quarter in the medical care of seamen.

The fact that the work of medical aid was the core round which has been built up one of the most important national agencies for the promotion of public health, is of some administrative importance. To quote Dr. Walter Wyman, Surgeon-General of the Service in 1910, in reference to the significance of the marine hospitals for the activities of the Service at large:

> They furnish the means for training the medical corps in governmental work. They keep it in active professional practice. . . .
>
> They serve as sanitary outposts through which the public-health functions of the service may be more effectively carried out, and by which surveillance may be had over the migration of infectious diseases. In times of epidemics the trained officers of these stations are mobilized at the point of danger. From them frequently

the first warnings come, and at many of the stations the officers are identified with important health movements.[10]

An influence much more difficult to assess objectively, but which may be sensed by anyone who has had contact with the activities and personnel of the Service, is the effect of this early preoccupation with seamen upon the Public Health Service's "official mind." It has tended to make it a masculine organization, with a wholesome respect for rough and ready methods—an organization built from the field in, with a personnel receiving its first test in actual hospital management, and with a very strong emphasis upon medical training as a preparation for public health work. This difference of spirit and emphasis can more readily be felt in comparing the Public Health Service with the personnel of such an organization as the Children's Bureau—built from the office out to the field, largely feminine in interest and outlook, and with much less emphasis on the purely medical elements in public health activity. Such difference in the training and outlook of the personnel of governmental bureaus gives their efforts something that might almost be called personality, with all the frailties of personality—its jealousies, its ambitions, its narrowness of viewpoint, and its general cantankerousness in situations which call above all for joint endeavor.

CHAPTER V

MEDICAL CARE AND PREVENTIVE MEDICINE IN THE ARMY AND NAVY

The men of the Army and Navy form a second group in the population which on account of their exceptional situation have necessitated the organization of a national medical system to provide for them. Because of their isolation on ships, in Army posts, or in far-away naval stations, because of a special system of legal control and discipline, and because of the need during war for maintaining traveling and fighting units at a high level of physical efficiency, soldiers and sailors find the services of the regular local and state health organizations or of private physicians, nurses, and hospitals not accessible to them.

Originally the medical bureaus created for each of the fighting services were designed as substitutes for the usual private services of practitioners—in short, for medical care of the sick men in uniform. But because of the more constant and complete control of personnel associated with military life these Army and Navy medical agencies began early to assume the character of significant experiments in state medicine, that is, free medical care by salaried physicians, nurses, and hospital organizations. For this reason they have been of peculiar importance from the point of view of public health.

Like the Marine Hospital Service, the military medical corps has shared in the growth of knowledge and technique in the field of preventive medicine and has gradually incorporated public health activities as an important part of its work. In the case of the Army medical service, at least, its

work and influence have extended far beyond the personnel immediately under its charge. It has engaged from time to time in civil public health administration, performing brilliant demonstrations in the treatment and prevention of disease in the tropics among peoples unaccustomed to science—often of alien speech, customs, and sympathies and winning significant victories for health. Also its development of medical and public health research, by investigations in epidemiology and vital statistics, and by the occasional leadership of its personnel, deserves careful examination in any study of the health agencies of our national government. More modest claims may be made for the Bureau of Medicine and Surgery of the Navy.

Early Organization of the Army Medical Department.—The Army Medical Department, like the Army itself, had its origin and has had its periods of rapid growth in time of war. During the American Revolution apparently the task of caring for the sick and wounded soldiers devolved largely upon the regular civilian physicians in each locality. The merest skeleton of a military medical service is seen in the title of Director-General of the first Army hospital. With the organization of the national government under the new Constitution the War Department had charge of an Army of seven hundred men. For them there was provided one army surgeon and four surgeon mates—a rather rudimentary beginning. During these early years when military administration existed in terms of a few outposts, the interesting experiment of combining the office of Physician General for both Army and Navy was tried (1798-1800). This was abandoned, however, and the second American war, that of 1812, led to the organization of a definite corps of army medical officers with a "Physician and Surgeon General" at its head.[1]

In 1821 the medical organization was formed into a central bureau known as the Medical Department, with a surgeon-general, assistant surgeons-general, and assistant sur-

geons. In 1834 a system of examination for admission to the Medical Corps and for promotion within it was instituted. This plan not only assimilated the medical corps to the other branches of the Army, but gave its members a regular career and definite professional status. Dr. Thomas Lawson, who held the office of Surgeon-General from 1836 to the outbreak of the Civil War, did much to make this professional status a strict reality. He himself was promoted from the ranks of the Medical Corps.

The Civil War period, therefore, found a bureau definitely organized for the medical and surgical care of the soldiers. The enormous expansion of medical personnel entailed by the war caused much inefficiency and consequent criticism. Although before its close an efficient and flexible ambulance and field hospital system for the care of the sick and wounded and a general system of nursing and hospital relief had, with the aid of the Sanitary Commission, been developed, it cannot be said that the problems of sanitation and preventive medicine had been handled with anything like adequacy.*

Development of Preventive Medicine and Research in the Army.—At the end of the Civil War the Army Medical Corps was ready for active participation in the public health discoveries of the period. The war had greatly enlarged the medical personnel; it had brought in from civil life some of the ablest young medical graduates—an infusion which would probably not have occurred during times of peace. Protected by professional status and with permanent tenure, there gathered around Surgeon-General Barnes a group of capable medical officers, notably Dr. John S. Billings, Dr. J. J. Woodward, and Dr. Curtis. In the regular work of the Surgeon-General's Office there was little to interest

* Previously, in the Mexican War, the first American conflict in the tropics, the dangers of bad sanitation were clearly evident and sorely felt, since in this conflict seven times as many soldiers died of disease as at the hands of the enemy.[2]

them. The Army reports of the 'seventies speak of furnishing artificial limbs and trusses to war veterans, the compiling of the medical records of the war, the routine maintenance of post surgeons and hospitals, and the care of a small medical museum and library. In the comparative leisure of their Washington life these men, along with Dr. George M. Sternberg, as yet an obscure post surgeon, and several civil servants in the scientific bureaus in Washington, turned with enthusiasm to medical scientific work, and followed with absorption the sanitary and medical discoveries we have already noted as coming in the third quarter of the nineteenth century.[3] Their influence was felt not only within the Army medical organization, which was gradually broadened from an agency of medical care to one of disease prevention also, but outside as well. During a part of the period, indeed, the Army medical staff became for many purposes the principal national public health agency in the field of research and investigation.

Laboratory Research.—Dr. J. J. Woodward, located in the Surgeon-General's Office, turning his attention to microscopy and microphotography, became a pioneer expert in this field in the United States. Surgeon George M. Sternberg, amid the difficulties of service at isolated and poorly equipped army posts, became an experimentalist in bacteriology, earning by his continued researches the title given to him by both Dr. Koch and Dr. Welch as "the father of American bacteriology."[4] When he was promoted to the position of Surgeon-General in 1893 one of his first acts was to create the Army Medical School, an institution giving training in military medicine, public health, and sanitation through which all candidates pass before receiving a commission in the Medical Corps. During his régime also there were established, in connection with the Army Medical Museum, laboratories for bacteriological work and the laboratory facilities at each post were increased. Through his leadership arrangements were made to station officers

of promise in large medical centers where they might have the advantage of laboratory work and postgraduate instruction. Thus the facilities and the personnel for research and investigation in public health were developed within the Army Medical Department and there was formed an organization which was to bear fruit at the time of the Spanish-American War.

Field Investigations.—The Army medical staff during these years was frequently called upon to undertake investigations outside of its own particular province. As early as 1866 two of the Washington group in the Surgeon-General's Office were called to New York City to study the increasing prevalence of cholera at that port. In 1874 Congress, seeking the cause of the widespread cholera epidemic of the previous year, called upon the Army to furnish the personnel for a cholera investigation. Drs. Billings, Woodward, and Curtis were detailed to the Department of Agriculture to make investigations regarding epidemic cattle diseases in 1869. In 1873 an Army medical officer was detailed to study yellow fever in the Southern states. And when the National Board of Health, in 1879, appointed a Yellow Fever Commission to go to Cuba for the investigation of the cause of that recurrent malady, it had Dr. George Sternberg as its chairman and Dr. Woodward of the Army as one of its members. Although the findings of this commission were negative, they cleared the way for the later work of the Army Medical Corps in Cuba with its brilliant results. Dr. Billings was, as we shall later see, a prime mover in the creation of the National Board of Health. He became its vice-president, and was its most active member. Most of its field investigative work, such as the Memphis sanitary survey, was carried on by Army medical officers on detail and directed for the most part by Dr. Billings.

Meanwhile the emphasis within the Army was being changed from curative medicine to sanitary control. In 1885 the regulations were amended so as to permit the detail

of Army medical officers to make sanitary reports of their posts, studies of rations, water supply, waste disposal, drainage, clothing and habits of the men. In 1887 accurate analysis of hygiene and health problems at the military posts was begun. In 1888 the newly-appointed Surgeon-General recommended the appointment of a board to investigate and to report upon sanitary conditions in the whole military establishment.[5]

Vital Statistics.—In the field of vital statistics the Army Medical Department also assumed a position of leadership. By 1885 the annual report of the Surgeon-General showed distinct improvement in the collection and presentation of the vital statistics of the Army population. For many years thereafter the failure to develop adequate and complete vital statistics of the civil population made the Army vital statistics of great value for general epidemiological analysis and as an example to civil health organizations. Through the activity of Dr. Billings the Army influence in this field became even more direct. It was through his suggestion and leadership that the United States Census of 1880 developed a vital statistics survey and analysis for New York City.

The Surgeon-General's Library.—Although not directly in the field of public health, the creation of the justly famous Surgeon-General's Library and the *Medical Index* indicates clearly the remarkable interest of the Medical Department in serving the general cause of medical research. At the end of the Civil War there had accumulated a "slush fund" of $80,000, originally appropriated mainly for Army hospitals. One of the early staff assignments of Dr. Billings was the custodianship of the then small and unimportant Library of the Surgeon-General. With the fund thus accidentally accumulated he immediately laid the basis for the expansion of the small collection of twenty-five hundred volumes to its present size and importance.

The librarian conceived and promptly initiated the ingenious plan of a medical catalogue, indexed for author and subject, that should embrace not only monographs and standard works, but the reports of individual cases upon which so many conclusions of medical science depend.

From this beginning has developed the universal catalogue of medical literature, the Index Catalogue, the first volume of which was issued in 1880 and consisted of 880 quarto pages.

This Index, requiring great technical knowledge and unceasing industry, has been kept fully up to date and abreast of the latest professional advances. Making its way over the earth wherever medical science is known, it has brought great credit to the Army, fame to its designer and compilers, and has received the high commendation of the whole world—praise not given to mediocre work.[6]

There is no logical reason why this valuable piece of medical bibliographical work should have been located in the Army Medical Department. More naturally it might have been placed among the activities of the national civil health organization. Its success is due to the existence in the Army Medical Corps of the able and progressive men who initiated and developed it.*

Hospitalization.—Hospitalization, closely related to public health and medical advance, was another field in which the Army assumed an advanced position. The versatile Dr. Billings during the Civil War had been the head of the war hospital at Philadelphia. One of his early post-

* Dr. Billings's pioneer accomplishment in the field of bibliography and librarianship eventually overshadowed his other interests. In his last years (1896 to 1913) we find him outside of the Army as the first director of the New York Public Library, one of the most distinguished library posts in the country.

Dr. Oliver Wendell Holmes thus indicates Dr. Billings's qualities as a bibliographer in recounting a visit Dr. Billings paid him at his home in Cambridge:

"Directly upon entering the room, he swept the shelves with a keen glance, selected the most valuable book in the collection with unerring precision, looked at it a moment, put it back on the shelves, took another look around, and easily found the second book in the scale of values.

"Why, sir, Dr. Billings is a bibliographer of such eminence that I regard him as a positive danger to the owner of a library, if he is ever let loose in it alone." (See *Dr. John Billings, A Memoir,* pp. 217-218).

war assignments noted in the preceding chapter was made in response to a request of the Secretary of the Treasury in 1869 that he "inspect and report upon the conditions of the Marine Hospital Service throughout the country, in connection with which he prepared a plan for its reorganization, which was adopted." [7] He made valuable suggestions to this civil hospital service in the realm of hospital construction as well as in recommending to them the Army personnel system and semimilitary organization.

About the same time Dr. Billings made an official investigation of the Army hospitals, preparing a very valuable report on hospitals and hygiene in the Army. With this background he was chosen medical adviser for the construction of the new Johns Hopkins Hospital, in preparation for which he visited Europe in 1876 to study methods and structures. The hospital erected under his advice became a model for subsequent hospital construction in this country. Through him, therefore, the Army Medical Department furnished conspicuous leadership in the hospitalization problem.

A Military Department of Public Health.—During the period from the 'seventies down to the Spanish-American War it is perhaps not too much to claim that the Army Medical Department was the principal national governmental agency in the United States in the field of medical research, in public health investigation, and in sanitary activity. Roughly, during this period it was changed from a corps of surgeons and physicians into a military health department. The year and occasion marking the recognition of this change is defined by Colonel Frederick Russell, himself representing the new emphasis in the Medical Corps, as follows:

> The appointment of General Sternberg to the Surgeon-Generalcy in 1893 marks an epoch. With him came the new medical and scientific knowledge.
>
> Anyone would be justified in saying that the renaissance of

scientific medicine in the Army dates from the beginning of his administration.[8]

The Spanish War and The Army Medical Department.—The Spanish-American War in 1898 signalized more publicly the development of the Army Medical Corps as an agency of public health administration. The danger faced by the whole Army in this conflict was, as it turned out, primarily one of disease: 862 men were killed in battle, 106 died of wounds, and 5,438 died of disease. Eighty-five per cent of these deaths from disease were due to typhoid, which became epidemic in the encampments. A large number of the camps were made up of raw militia recruits under the control of state medical militia. It is difficult to say whether the regular Army might not have prevented the epidemic if the volunteers had been under the supervision of the regular Army Medical Corps. It did organize a board of experts consisting of Drs. Reed, Vaughan, and Shakespere, which rendered an exhaustive and valuable report on typhoid in the camps. Following the war the Medical Department, under Colonel Russell, attacked the typhoid problem by complete inoculation of the Army personnel, practically eliminating this important communicable disease as a cause of Army illness and providing a means of controlling it in future mobilizations from civil life.

Immediately following the Spanish War the Medical Corps was faced with the sanitary problems involved in the military government of the civil population in Cuba, Porto Rico, and the Philippines. A pressing problem in Cuba was that of yellow fever—a recurrent and deadly epidemic in Havana and elsewhere. Dr. Sternberg, it will be remembered, had been chairman of the Yellow Fever Commission of the National Board of Health which visited Havana in 1879. For many years subsequently he was one of the closest and ablest students of the yellow fever problem. In 1887 he had been detailed to the Marine Hospital Service to make an investigation of an alleged yellow fever

germ discovered in Mexico and Brazil. On this mission he came in touch with the experimental work and the mosquito theory of Dr. Carlos Finlay.

Now himself at the head of the Army medical service, Surgeon-General Sternberg promptly called into being the Army Yellow Fever Commission, with Major Walter Reed, Professor of Bacteriology in the Army Medical School and former pupil of Dr. William H. Welch at Johns Hopkins, as its chairman. The other members were Dr. James Carroll, Dr. Aristides Agramonte, and Dr. Jesse W. Lazear, all from the Army Medical Department. The account of the commission's carefully controlled field experiment to test the truth of the Finlay theory of mosquito transmission, the use made of the brilliant scientific observations of Dr. Henry R. Carter of the Marine Hospital Service, demonstrating the extrinsic incubation period for the disease, and the scientifically accurate and conclusive demonstration of the truth of the theory has already been told many times.[9]

Following its conclusions, Major W. C. Gorgas, as sanitary officer in Havana, instituted mosquito screening and other control measures, the results of which demonstrated the importance to actual sanitary practice of the work of the Reed Commission. This military sanitary victory led to the choice of Dr. Gorgas, assisted by a staff of Army and Marine Hospital Service officers, to take charge of sanitation in the Panama Canal Zone, where there was achieved another signal victory over yellow fever and other tropical diseases. During the military administration of Porto Rico a less spectacular but important discovery was made by Dr. Bailey K. Ashford of the Army Medical Corps. His researches led to the assigning of the prevalent hookworm disease as the cause of widespread anemia.

The gradual transfer of general administration in the newly acquired dependencies to local officials brought about the discontinuance of military health administration among the civil population. But the Spanish War and the accom-

panying period of military control established more securely the Army Medical Department as an expert agency for the promotion of the science of sanitation and preventive medicine. With extensive facilities, with expert personnel engaged in scientific research, with vital statistics accurately compiled and used for epidemiological studies as well as for current sanitary defense, with a field force trained and experienced in public health administration and state medicine, with hospitals well in line with modern practice, with a remarkable library for medical research, the Army Medical Department was by 1914 one of the most important and one of the most successful public health organizations connected with any national government in the world. Our entrance into the World War in 1917 found it better prepared for the gigantic task of caring for a citizen army than in any previous conflict. The war period proved to be one of rapid development for the Medical Department. Our study requires us to analyze the administrative problems met and the organization which resulted from this most recent war experience.

Army Medical Department and the World War.—The task faced by the Army Medical Department in 1917 was indeed stupendous. It called for the provision of medical care and hospital facilities for an army of over two million men, the examination of the entrants to this army, the furnishing of sanitary and public health protection for the troops in the United States and in France, the provision of surgical care and hospital facilities for the wounded in battle, for their return to the United States, and for their care throughout convalescence. It was necessary to organize a medical and health service for a group ten times as large as the peace army of 200,000 and to provide also for the wounded and convalescent. The disease problems were in one aspect easier to deal with than those of the Spanish War since the soldiers were sent for the most part to comparatively healthful localities in the Temperate Zone and

were, previous to embarkation, encamped in the United States in naturally healthful places. The pandemic of influenza and pneumonia, however, proved to be a severe disease danger, especially in the close contacts of barracks life.

Problems of Medical and Hospital Relief.—The tasks of medical care and hospitalization were probably the most difficult administrative problems in the enlarged Army. The quick expansion at the beginning and the sudden end of the conflict disturbed all calculations from which to provide hospital care. The activity of the Army in this branch of its work is so closely bound up with the general governmental hospitalization problem which emerged after the war that treatment of it is reserved for a subsequent chapter (Chapter VII). Suffice it to say here that in July, 1917, there was created a Hospital Division in the Surgeon-General's office under which was built up an administration of thirty cantonment hospitals and of several other hospitals, purchased, leased, or reconstructed for dealing with special disease groups such as the tuberculous, mentally diseased, and returned wounded soldiers. After the war there took place a rapid liquidation of this hospital equipment, so that by 1921 the Army retained only its required number of camp or post hospitals. The net gain was in the improvement and enlargement of several general hospitals, notably the Walter Reed Hospital in Washington, D. C., where after the war there was created an Army Medical Center to include the Army Medical School and Army research laboratories.

A large expert staff and field organization in medical and surgical research was also developed during the war and extensive investigation into the treatment of special diseases and wounds was carried on, notably into mental diseases and physiotherapy. Divisions of Neurology and Psychiatry, of Internal Medicine, of Internal Surgery, of General Surgery, of Military Orthopedic Surgery, and of Physical Reconstruction were created in the Surgeon-General's Office and correlated with the Hospital Division. By 1920 these

divisions were abolished or contracted into sections of the Hospital Division. The net result of the war expansion in medical and surgical care was thus an enlarged experience in hospital administration and accumulation of knowledge regarding specialized treatment of patients suffering from mental troubles and tuberculosis.*

Problems of Preventive Medicine.—The Army's problem in the field of medical relief was equaled by the task of providing for the public health protection and hygienic well-being of millions of young men in the necessarily close living of army camps and trenches. For this work the Army Medical Department was not unprepared. For many years one of the three main units of the Surgeon-General's Office was the Sanitary Division. Here staff activities of a public health nature, such as laboratory research and vital statistics, had been organized. In the field each post surgeon, besides being the director of camp medical and hospital activities, was in charge of the local sanitary and preventive medicine work. The medical corps personnel was trained and experienced in both aspects of their duties. The war problem consisted mainly, therefore, in a vast extension and specialization of both line and staff public health activities.

Let us first examine *the field organization.* The principle of local post or camp control of all medical and health ac-

* More complete attention than ever before has been given by the entire Army to the organization problems connected with the necessity of rapid expansion. The Medical Department has recognized this emergency problem by the creation of a Planning and Training Division. To this unit is assigned the task of continuous planning for the mobilization following a declaration of hostilities. Studies are made of the problem of organizing an enlarged personnel, of hospital trains, field hospitals, medical work at concentration camps, and emergency sanitary organization. It may do much to give the medical organization greater flexibility. The question arises whether this sort of rapid expansibility might not be available for meeting such emergencies as occasional pandemics during times of peace. (See *Report of the Surgeon General U. S. Army,* 1920, p. 255; 1921, pp. 106, 107.)

tivities was retained during the war administration. This meant that in each cantonment the camp surgeon was the chief medical and public health officer. As specialized health activities developed they were fitted into the local or camp organization, whether carried on by the regular medical commissioned and non-commissioned personnel or by non-medical health experts organized in the Sanitary and other corps. Physical entrance examinations, periodic inspection, quarantine, and hospitalization—parts of a combined cure and preventive program—were carried on by the officers and personnel of the Medical Corps under the camp surgeon. Most of the camps had an epidemiologist who became the camp surgeon's assistant in immediate charge of public health matters. Also there were usually one or more sanitary engineers, a local sanitary inspector, and in the larger camps a nutrition officer or officers to study the food problem. Camp inspection of meat and dairy products was eventually assigned to a representative of the Army Veterinary Division under control of the camp surgeon, after unsuccessful experiments with inspection by men assigned from the Department of Agriculture to the Quartermaster's Department.[10] Finally there were included in the camp medical-sanitary organization one commissioned and one or two non-commissioned officers of the Sanitary Corps in charge of venereal disease educational work under the central supervision of the Commission on Training Camp Activities, often a law enforcement officer of the Sanitary Corps to deal with liquor and prostitution, and women employees of the Commission on Training Camp Activities to carry on police and protective work with delinquent women and girls. Altogether these made a rather varied and a highly specialized personnel subject to the local direction of the camp surgeon and to the central supervision of various bureaus dealing with health and sanitary problems. The Army health organization had complete power within the military reservation derived from the military authority of

the camp surgeon and his immediately superior military officer.

But health problems could not be dealt with adequately or efficiently by limiting control over them to the camps themselves. Consequently, there was created by law around each military reservation an "extra-cantonment zone," including the near-by cities and countryside to which the soldiers might repair during leave, and which, therefore, might serve as foci for the spread of communicable disease into the encampment. Into these extra-cantonment areas the military police power did not extend. But into each of them the United States Public Health Service sent officials assigned to the supervision of public health matters. The nursing personnel was provided by the Red Cross. A sort of complementary health organization was in this way set up. The local civil police and sanitary authority remained as usual. Effectiveness depended, therefore, upon obtaining the coöperation of the local health authorities. This was often done by persuasion, by offering free personnel, and the advantage of gratuitous, expert aid. Upon occasion the indirect but effectual power of military boycott of localities or places of business was used by coöperative action of the Army camp authorities.

The extra-cantonment health work included prompt notification of unusual health conditions, control of epidemics, regulation of food handlers, reduction of flies and mosquitoes, control of waste disposal, prevention of illegal liquor dealing, suppression of prostitution, and miscellaneous activities. In the Southern states sanitary engineers of the Public Health Service working in coöperation with sanitary engineers within the Army camps carried on important mosquito and sanitary control measures. Although success depended upon team work between local civil health officers and public officials, between army camp health officers, the Public Health Service officials and other agencies such as the Red Cross, such relationships seem to have been

satisfactorily maintained. The unusual coöperative tendencies of war were undoubtedly a factor in their success.

The expansion of the field health units of the Army Medical Department was paralleled by an equally important growth of *the staff organization* in the Surgeon-General's Office. These staff agencies were in existence to some extent before 1917 as subordinate parts of the Sanitary Division. But during the war the units were greatly expanded, some becoming separate divisions, and some being created anew. We shall consider the principal subdivisions, namely, laboratories and scientific research, vital statistics and epidemiological work, venereal disease control, and the training and organization of personnel.

The problems of supervision of the field organization became so pressing that there was established early in the war a Section of Inspection in the Sanitary Division which employed a corps of sanitary inspectors to make general sanitary inspections of the camps.[11] There was also created a central Section on Sanitary Engineering which served as an agency of inspection and centralization of information in the field. These staff inspection agencies were both abolished at the end of the war. In line with the general policy of deconcentration the corps area headquarters became the agency for central supervision and inspection.

One of the principal agencies for the staff administration of public health in the Surgeon-General's Office was the laboratory and laboratory research unit. Before the war, laboratories had been developed in the field at the army posts and a general laboratory in each of the Army departments. The cantonments carried over the laboratories as a part of their equipment. Most of the work done in them was of routine nature. They grew so extensively because of war expansion that in 1917, largely in order to obtain for them better supervision, a Division of Laboratories and Infectious Diseases was created. The Division was engaged also in some of the war problems of laboratory research.

For this it was able to make use of the general departmental laboratories; of the Army Medical Museum and the Rockefeller Institute, both of which carried on important studies; and of the laboratory division of the Army Medical School with its pathological, chemical and nutrition, dental, and veterinary laboratories. The latter institution formed a sort of central laboratory research organization for the Medical Department and as such has been maintained in its new quarters at the Walter Reed Medical Center in Washington.[12] Part of its work has been, and is, the preparation of vaccines for Army use and typhoid vaccine for civilian use as well, distributed by the Public Health Service and the Department of Agriculture.

In the reorganization after the war the Laboratory Division was reduced to a section and placed under the Division of Sanitation (renamed in 1925 the Subdivision of Preventive Medicine in the Professional Service Division). The corps area laboratories replaced the general or departmental laboratories. Thus at present there is a central staff unit devoted to laboratories and laboratory research, a highly organized central laboratory organization (the Army Medical School), corps area laboratories organized for routine and research, and a complement of post or camp laboratories for local routine activity and occasional coöperation in research.

Another Army staff activity necessary to public health administration, considerably developed during the war, was the compilation and use of vital statistics. Three types of work are necessary for a complete vital statistics organization: first, the compilation of statistics for thorough analysis and permanent record; secondly, the frequent compilation and use of current vital statistics for immediate disease control; and thirdly, the development of epidemiological, statistical research with the object of devising more accurate technique for current disease control. These three

separable functions were all developed in the Army before or during the war.

For years before the World War the Medical Records Section of the Surgeon-General's Office had received and compiled the monthly sanitary reports of the various Army stations. This work served both for current disease control and for permanent record. During the war these reports and their compilation were continued, with an enormous quantitative growth involved in compiling the permanent records of the physical examinations of draftees.

For the immediate information of the medical staff in charge of the current control of communicable and other diseases, however, the monthly mail returns from the camps were not sufficient. A Section on Current Statistics, therefore, was formed September, 1917, to receive telegraphic reports and to issue frequent analyses of health conditions.[13] To quote from the official description of the function and effectiveness of this section:

> This section compiles its statistics from telegraphic reports, which are sent to it by every department surgeon, camp surgeon, and commanding officer of a general hospital, and by surgeons in charge of ports of embarkation, in independent posts, and camps throughout the United States.
>
> During the period of mobilization of the National Army these statistics were the current available sources of information on the health of the Army. Later, during the measles-meningitis epidemic of November, 1917, and influenza-pneumonia pandemic of September and October, 1918, the section on current statistics furnished the only up-to-the-minute source of information on the relative progress or abatement of these epidemics in our camps. This information was vitally necessary in determining at what points help was most urgently needed for checking the ravages of the epidemic; to what places, and at what times, it would be safe to move healthy troops; and in what localities a more rigid system of quarantine should be established in order to halt the further spread of the contagion.
>
> The Surgeon-General is thus kept informed at all times as to health conditions in every zone of operation. On these figures are

based the weekly reports to the Secretary of War, to the Chiefs of Staff, and to the public press.[14]

The third function, that of epidemiological study of diseases through the use of vital statistics, was developed by the creation in 1918 of a Section on Communicable Diseases. The statistics collected by the Medical Records Section furnished a vast mass of raw material for long-time studies of disease in relation to climate, race, season, etc. This material was supplemented by the telegraphic reports. Also there was available the Surgeon-General's Library with its material for historical-statistical research. For cooperation in the field there was in each of the larger camps under its chief surgeon an epidemiologist in charge of local studies of communicable diseases.

During the war the Section on Communicable Diseases became a sort of staff headquarters for the observation of epidemic diseases throughout the world, wherever there was possible contact with American troops. After the war, in coöperation with the other statistical sections a comparative study was made of the history of the occurrence of communicable diseases in the Army for the thirteen-year period from 1903 to 1915. From this study there was devised a chart of the normal rate of occurrence of sickness and death, termed an endemic index, to be used as a basis for determining more accurately the beginning of epidemics through the appearance of deviations from the normal current morbidity rates.* The Medical Records Section compiled and issued

* The use of the endemic index is described as follows in the 1920 report (pp. 237-238): "In order that the information contained in the charts . . . may be constantly available at all stations throughout the Army, a wall chart three by five feet in size has been prepared on which are plotted, for comparative purposes, the average annual admissions and death rates. . . . It is the intention that this chart will be placed in the office of the surgeon or sanitary inspector at each station and that the current rates . . . for each of the important communicable diseases will also be plotted each month, to the end that all

Bulletin No. 11, "The Physical Examination of the First Million Draft Recruits," a publication of great value in the analysis of civilian health problems in the United States.

The relation of the statistical units to one another was not clearly defined during the war. After several temporary shifts, however, the 1920 reorganization provided for the creation of a Statistical Division, separate from the Sanitary Division, for the general service of the Surgeon-General's Office. In it were absorbed the Medical Records Section and the Current Statistics Section. With a highly organized tabulation machinery it has become a general service unit for the collection, tabulation, and publication of vital statistics. The Infectious Diseases Section was retained under the Sanitary Division to carry on epidemiological research. The ambitions of the organizers of this statistical research section are given in the 1919 report as follows:

> The section should be the repository of all information on the subject of infection. . . . The head of the section should strive to be the best-informed person in this or any other country on the subject of epidemiology.[15]

The organization was completed with a provision for the collection and analysis of current statistics for immediate disease control by each corps area headquarters, in line with the general policy of deconcentration of Army authority.*

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local authorities may not only be continuously aware of the current movements of communicable diseases in their commands but will also be able at once to compare current rates with average rates for the Army over a period of several years. This chart will be a constant reminder of the influence of sick rates at any one station on the Army rates as a whole. The existence of abnormally high rates or exceptionally low rates over a period of several years will be equally obvious to the commanding officer, the local surgeon, or a visiting inspector. The mere realization that the prevalence of any communicable disease is abnormally high is frequently the only stimulus necessary to assure the initiation of the necessary control measures."

* The present organization of the Army Medical Department is the product of the general Army reorganization of 1920, modified in some

Summary.—By its work before and during the World War in relation to the problems of communicable diseases the Army Medical Department in staff and field has proved its continued right to be considered one of the most important public health agencies of the national government. Through its combination of a highly organized medical service with a compulsory health service it furnishes an elaborate experiment in what may be termed state medicine.

Although its curative medical and hospital organization does not concern us directly, its public health activities and equipment, which include an efficient laboratory, statistical, and library research staff, and an expert corps attacking in a thoroughgoing way one communicable disease after another, are of real importance in any consideration of the

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particulars by another reorganization put into effect July 1, 1925. The units in the Office of the Surgeon-General are as follows:

A. Professional Service Division
  Preventive Medicine Subdivision
    1. Sanitation Section
    2. Communicable Diseases Section
    3. Physical Examination Section
    4. Laboratory Section
    5. Army Medical Museum Section
    6. Professional Service Section
B. Vital Statistics Division
C. Army Medical Library
D. Personnel Division
    1. Medical Corps
    2. Dental Corps
    3. Nurse Corps
    4. Veterinary Corps
    5. Sanitary Corps
    6. Medical Administrative Corps
E. Hospital Division
    1. Professional Section
    2. Hospital Section
F. Army Medical School
G. Finance and Supply Division
H. Planning and Training Division

In the field there are nine corps areas each with a chief surgeon in charge of medical and sanitary activities. (See *Annual Report of the Surgeon-General of the Army*, 1926, pp. 202 ff.)

present national public health machinery. It would be a small view of economy and efficiency which failed to examine carefully the possibilities for the utilization of the Army medical organization in any program of national civil health promotion.

The Navy Medical Organization.—The organization and problems of the Navy health service under the Bureau of Medicine and Surgery are so similar to those of the Army under the Surgeon-General's Office that no detailed account of the former need be given here. Like the Army, the Navy medical organization has had to provide the personnel under its charge with a substitute for the usual services of private physician and hospital. Like the Army, too, as preventive medicine has developed the Naval Medical Corps has combined with its curative activities the newer forms of public health administration, thereby carrying on an important experiment in state medicine. So, also, the Navy in this combined attack has been dealing with the same types of disease as the Army. The communicable diseases—smallpox, typhoid, yellow fever, tuberculosis, pneumonia, influenza, venereal diseases, and others not so serious—have been its main concern. For their treatment and cure the Navy organization is closely similar to that of the Army. In the field we have in place of the Army post the naval vessel and the naval station. Each of these has a Navy surgeon in charge of the medical care of the sick, of medical inspection, etc. Usually each vessel or station has the equivalent of a small local hospital. In addition to this organization of local units, each under a surgeon, the Navy, like the Army, has developed several larger general hospitals, some of them specialized as to type of disease, where more serious or more permanent cases are taken for treatment. In the Navy Department at Washington there is a central staff and directing agency, the Bureau of Medicine and Surgery, with the Surgeon-General of the Navy at its head

Preventive Medicine in the Navy.—Until the time of the European War the Navy, unlike the Army, had not developed a central organization for preventive medicine. It lacked the impetus and experience given by large scale civil health administration, until recently when it came to have charge of the health work in some of the American island protectorates: Haiti, Santo Domingo, Guam, Samoa, and the Virgin Islands. As late as 1907 the Office of the Navy Surgeon-General consisted of four divisions dealing respectively with administration, personnel and statistics, supplies and accounts, records and pensions. There was thus no separate recognition of the problems of preventive medicine in the staff organization.

The Navy Medical Corps before the war had developed instruction to officers and men in personal hygiene and had administered smallpox vaccination and universal anti-typhoid inoculation (1911). In the Naval Medical School, established in 1902, instruction in preventive medicine and sanitation as well as in the other aspects of Navy medical work was given to young officers entering the Service. The school laboratories engaged to some extent in research problems connected with preventive medicine. In their individual posts, too, many of the officers doubtless instituted preventive measures and sanitary improvements of local value. But altogether the development of the Navy Medical Bureau as a public health organization did not equal that of the Army even before the beginning of the twentieth century.

The World War and the Development of Preventive Medicine.—With the entrance of the United States into the World War the expansion of Navy personnel and the presence of great bodies of men in naval training camps made apparent the need for a more adequate sanitary organization and an enlarged medical personnel. The Navy solution of this problem was different from that of the Army. True,

one of the first acts was the creation of a staff public health agency by calling into being in 1917 a Division of Sanitation in the Bureau of Medicine and Surgery. But instead of building up separate personnel and equipment for sanitary work the Navy availed itself of the personnel, experience, and equipment of the national civil health agency—the Public Health Service.

Surgeons Hugh S. Cumming and Carroll Fox of the Public Health Service were assigned to the Navy Sanitation Division at its request. Fifteen other Public Health Service officers were detailed to serve in the field in connection with the Navy medical staff.* The officers were attached to each of the naval districts, within which control and supervision of the Navy training stations, arsenals, and hospitals were organized. These districts correspond to the department or corps area of the Army. Attached to the Navy chief in each district was a medical aide to supervise the medical work at each of the stations. A Public Health Service officer forming a part of this aide's staff was put in immediate charge of public health work within the district. In some of the areas a board of health was formed consisting of the medical aide, the Public Health Service officer, and the medical officers in charge of hospitals at the stations. The Public Health Service officer, advised by this board, helped to select and to inspect sites for camps and hospitals, made epidemiological studies, availed himself of the largest or best-equipped laboratory in the district for research as

* Such coöperative work between the Public Health Service and the fighting medical services was not unprecedented. The legal authorization for it was contained in an Act of July 1, 1902 (32 U. S. Stat. L. 712), Section 4, which provides for the utilization of the Public Health Service in times of threatened or actual war. The executive order necessary for actual detail of men was that of April 3, 1917, which directed the Public Health Service to work generally in coöperation with the Army and Navy. We have seen that in the extra-cantonment zones the Public Health Service was working directly in coöperation with the Army Medical officers.

well as routine public health laboratory work, and performed many miscellaneous tasks of inspection and supervision in regard to health and sanitation.[16]

The Division of Sanitation in Washington, meanwhile, developed staff facilities. The laboratories and research agencies at the Naval Medical School were utilized more than before in the study of sanitary problems. The usual analysis of vital statistics on the basis of monthly reports was supplemented by daily telegraphic reports from all stations. Epidemiological studies based on these reports were made in the central office and a current information record of the Navy disease situation was kept in visual form by means of pin maps.

Post-War Organization.—At the end of the war the problem of the contraction and salvage of the Navy public health services presented itself. The activities of the Public Health Service were, of course, detached from the Division of Sanitation. But the Division itself, renamed the Division of Preventive Medicine, was retained as a part of the permanent staff of the Medical Bureau. The more complete collection and current use of mortality and morbidity statistics, as well as the prosecution of epidemiologic studies, were maintained. Likewise investigations of problems of sanitation in the field of sanitary engineering (drainage, water supply, and mosquito control), and on phases of camp housing, ship ventilation, and industrial diseases, inaugurated during the war, were continued by studies made in connection with the Navy industrial establishments.[17] In 1920 the Division began the publication of a monthly bulletin called "Notes on Preventive Medicine." As a whole it would seem that the experience of modern war led to a greater emphasis upon preventive medicine in the work of the Navy Bureau of Medicine and Surgery.

In one of the most striking developments of the war in the direction of preventive medicine—that of venereal dis-

ease control—the Army and the Navy had a common organization and program. For this reason its description, as well as the consideration of the common personnel problems of the two fighting services, has been reserved for a separate chapter.

CHAPTER VI

MEDICAL CARE AND PREVENTIVE MEDICINE IN THE ARMY AND NAVY (*Continued*)

MEN in uniform have been traditionally in social conditions that involve large liability to infection from the venereal diseases. In the Medical Departments both of the Army and of the Navy these diseases had been recognized as an important health problem before the war. Studies indicate that there was a rather rapid increase in their prevalence from the period of the Spanish War up to 1917. The first active movement to deal with them broadly by a prevention program was signalized in the reports of the Surgeon-General of the Army for the years 1909 and 1910.[1] Before this, of course, there had been the usual military system of periodic inspection of troops to locate diseases, with prompt isolation, and hospital and medical care of the sick. But in his 1910 report the Army Surgeon-General suggested in addition the general adoption of a program of education for the men in the posts regarding the dangers of venereal diseases and urged more active provision of healthful recreation for the soldiers. He recommended also more careful attention to these diseases through periodic inspection, prompt and efficient segregation, and treatment during the period of infection. Finally there was recommended the provision of personal prophylaxis or early treatment, on application, to exposed men.

In 1912 by a general order (No. 31) of the War Department venereal disease inspections twice a month were required. At the same time another order required the attendance of men at prophylactic stations and penalized care-

less exposure by stopping the pay of those incapacitated with venereal diseases.[2] Such penalizing, however, tended in practice to encourage the evasion of inspection and reporting, and worked against the general program of early treatment as a means of disease control. Although the campaign of prevention undoubtedly had appreciable effects, medical men in the Army realized that the limitation of its direct application to soldiers within the Army posts left untouched the more important problem of control of conditions outside where soldiers almost invariably contracted the diseases. With the recruiting of a citizen army this trouble was complicated by the liability of infection before the soldier reached the Army camp.

So also before 1917 the Navy had experimented with venereal disease control by distribution of the individual prophylaxis packet. With the advent of Secretary Josephus Daniels, however, who supported adverse public moral sentiment in the matter, and also as a result of serious question as to the actual medical efficacy of the method, the experiment was abandoned.

The War Attack upon Venereal Diseases.—The war removed the practical and legal limits under which the pre-war program had operated. There was shortly created an ambitious Army and Navy venereal disease attack which included a more complete and extensive campaign within the Army camps and naval stations directly in charge of the Army and Navy Medical Corps, as well as a similar campaign in the extra-cantonment areas and among the civil population generally. The latter phases were in charge of other agencies acting more or less in coöperation with the Army and Navy medical organizations.

The Regular Army and Navy Organization.—The task of organizing the work in the Army camps was begun by the creation early in the summer of 1917 of a Section on Combating Venereal Diseases in the Division of Laboratories and Infectious Diseases of the Army Medical Depart-

ment. This unit developed and expanded the educational work among the soldiers in the camps, and exercised a general supervision of the Army social hygiene program. Activities within the camps were carried on largely by the local commissioned medical officers under the direction of the camp surgeon. Periodic inspection, provision for personal prophylaxis, isolation and treatment of infected soldiers, were provided for in this regular medical organization under the camp surgeon. Similar developments in the Surgeon-General's Office of the Navy took place at about the same time.

The Commissions on Training Camp Activities.—During the summer of 1917, also, there were created the Commissions on Training Camp Activities, one for the Army and one for the Navy. In actual practice these commissions did a large part of their work in common under one roof, were under one head, functioned largely as one organization, and were spoken of as one commission. The general scope of the Commission's activity was that of providing several essential civilian services for the men in the training camps and stations. Much of its work, however, bore indirectly, or directly, on the venereal disease problem. One division, which had charge of camp recreation, developed this part of the general social hygiene program to a much greater degree than ever before under direct military auspices.

Two of the Commission's divisions formed an integral part of the military anti-venereal disease program. One of these was *The Social Hygiene Division.* At its head was Lt.-Col. William F. Snow, who was also head of the Section on Combating Venereal Diseases in the Army Surgeon-General's Office, and who, before the war, had been a civilian public health officer prominent in the social hygiene movement in California and the nation at large. The Social Hygiene Division was divided into two sections, one for the Army and one for the Navy. A large number of its staff were commissioned in the Sanitary Corps of the Army and

Navy Medical Departments, many of them being non-medical men qualified by training and experience for social hygiene work. Along with non-commissioned sergeants they were assigned to the various camps, where they carried on venereal disease educational work, using materials developed by the Social Hygiene Division, including exhibits, pamphlets, lantern slides, motion pictures, etc. Had it not been for the close coöperation maintained between these activities and those of the regular Medical Corps officers through a common directing head, the two agencies would have duplicated. The use of different types of educational material accounts to some extent also for the lack of actual duplication between these two training-camp, social hygiene, educational agencies. In the Social Hygiene Division there later emerged a Motion Picture Section which prepared films for military, and still later for both military and civilian, use. In addition to the work done within the training camps there were organized two sections in the Social Hygiene Division, one on men's work and one on women's work, which adapted military material and method for educational work with civilians in the general population.

The second main unit of the Commission on Training Camp Activities dealing directly with venereal diseases was *the Law Enforcement Division.* It was divided into several sections representing different aspects of the work inside and outside of the training camps. A Section on Vice and Liquor Control with field officers, most of them commissioned in the Sanitary Corps of the Army, had charge of enforcing the law against prostitution and liquor within the cantonments where they exercised the military war power of police, and also, with the coöperation of civilian officers, outside the military zones. A Section on Women and Girls took charge of police and protective work among young women in and around the training camps. A third section, created April, 1918, promoted a program of control of prostitution by urging more adequate civil detention and

reformatory institutions for the care and custody of prostitute disease carriers.

Agencies Dealing with Civilians.—Although the main activities of the Commission were those of education and law enforcement (including protective-social work) in and near the training camps, there were also sections, as we have seen, devoted to the social hygiene education of men and women in the civil population. Other agencies soon came into being to deal with venereal disease control among the same civilian groups. Even before the creation of the Commissions on Training Camp Activities in the summer of 1917, there was organized a Civilian Committee on Coöperation in Combating Venereal Diseases under the General Medical Board of the Council of National Defense. In personnel this committee was made up of almost all of the leaders in the social hygiene educational movement which had grown up during the ten years preceding the war, especially in New York and on the Pacific Coast. It engaged in several types of activity in civilian communities. It brought to the task of preparing educational materials for both civil and military groups much experience, freshness in point of view and ingenuity. There were good beginnings in venereal disease programs for industrial plants, in law enforcement work and vice legislation at strategic places outside the Army and Navy camp zones, and in a variety of other tasks. Finally this committee served for a time as a sort of coördinating and initiating agency for the other social hygiene units of the national government.

As the work among civilians increased it gradually became apparent that the civilian governmental health agencies were closely involved. The Public Health Service, in charge of health activities in the extra-cantonment zones, necessarily participated in the venereal disease work emanating from the military camp program. State departments of health became aroused. In Massachusetts, Kansas, and North Carolina the Army Sanitary Corps lent officers to be heads

of state bureaus of venereal diseases as a demonstration in venereal disease control for civil communities. During the early part of 1918 the Surgeon-Generals of the Army, Navy, and Public Health Service united in recommending a model program of state attack on venereal diseases. The Public Health Service, as the regular agency of coöperation between the national government and the state departments of health, undertook the active encouragement and promotion of this program.

With regular civilian national and state health organizations developing their programs, and with the Commission on Training Camp Activities as well as the Council of National Defense committee extending activities among civilians, there appeared to be an increasing duplication of effort, if not of conflict of authority, between the wartime and the regular civil health agencies. Conferences were held as a result of which there was prepared and presented in Congress a rather comprehensive venereal disease measure designed to expand the civilian work as well as to coördinate it with the military program.

The Chamberlain-Kahn Act.—This proposal, known as the Chamberlain-Kahn Act (40 U. S. Stat. L. 886), passed Congress without opposition as a rider on the Army Appropriation Bill and became law July 11, 1918. Its provisions were based upon the principle that venereal disease work with civilians was a necessary part of the military program. It was also designed, in part, to set up permanent agencies for venereal disease control in the national health establishment.

One provision in the bill was the appropriation of a million dollars to be spent under the direction of the Secretaries of War and the Navy (actually by the Law Enforcement Division of the Commission on Training Camp Activities) in aiding the states *to provide more adequate detention and reformatory facilities* "in caring for civilian persons whose detention, isolation, quarantine, or commit-

ment to institutions may be found necessary for the protection of the military and naval forces of the United States against venereal diseases." The Law Enforcement Division had, previous to this, received $250,000 from the President's Security and Defense Fund which it was already using to aid states in constructing detention and reformatory institutions for sex offenders, the number of whom in custody had greatly increased as a result of the activity and zeal of the Commission's field force.

The million-dollar reformatories appropriation had an unfortunate history. Last-minute changes in the text of the bill inadvertently required the Interdepartmental Social Hygiene Board, set up by the Act, rather than the Commission on Training Camp Activities, to administer it. Furthermore, the Comptroller of the Treasury ruled that no part of the appropriation could be spent for the construction or repair of any institution. He also refused on technical grounds to allow the Social Hygiene Board to use the appropriation of $100,000 made for maintenance of its offices. The Board was relieved from its extreme embarrassment in this regard by an appropriation of $20,000 from the President's Fund in November, 1918. Although amendments designed to remedy these technical defects were immediately proposed in Congress, the short session ended without passing them. Not until July, 1919, did an appropriation ($100,000) for the Board's maintenance pass. Meanwhile the war had ended and the emergency need for construction was not so pressing. In December, 1918, the Board was able to offer assistance to the states for maintenance and subsistence in reformatories, a kind of aid which had been definitely rejected by the experts who designed the bill, in favor of aid for new construction. The Commission, and later the Board, selected specified institutions and gave aid under fairly careful supervision to see that the money was intelligently spent. In all, forty-three detention houses and reformatories received such financial

assistance during the war and demobilization period (from April, 1918, to June, 1920). Including the President's Fund approximately $427,000 was thus expended, but of this total only about $175,000 came from the July, 1918, appropriation. At the end of demobilization several of the assisted institutions were abandoned, but twenty-eight of the forty-three continued as permanent peace-time reformatories. Undoubtedly the federal aid helped to tide over a difficult period and to expand the utility of the institutions as well as to stimulate this institutional element in the peace-time program of venereal-disease control. But it was greatly handicapped by the clumsy mistake in the wording of the July, 1918, Act which Congress failed to rectify.

The other provisions of the Chamberlain-Kahn Act can hardly be classed in their essential purposes as military, although they formed links in the chain of the war attack on venereal diseases. A million dollars for each of two years was appropriated to be allotted to the states by the Interdepartmental Social Hygiene Board. Supervision of the civilian venereal disease programs in the states aided was assigned to the Division of Venereal Diseases in the Public Health Service created by the Act.

A third feature was the creation of *The Interdepartmental Social Hygiene Board* consisting entirely of *ex-officio* members—the three Surgeon-Generals and the three heads of the Cabinet departments in which their bureaus were located (or persons designated by them to serve in their places). The main purpose of this Board became obscured because of mistakes in the text of the Act. The hearings indicate that it was primarily to serve as a coördinating and supervising agency. It was given $400,000 for medical and educational research in relation to venereal diseases, to be allotted to educational institutions or to other agencies which submitted acceptable specific projects. The Act and hearings indicate also that it was to act as an advisory and

coördinating agency for the various federal social hygiene units.

Neither the legislation nor the two new agencies brought into being in July, 1918, served actually to simplify or to coördinate the venereal disease activities; nor did another step in this direction, taken at about the same time. By an Executive Order, July 1, 1918, under the authority of the Overman Act (40 U. S. Stat. L. 556), which was designed to eliminate just such duplication of war-time administrative effort, the President assigned all civilian health activities with certain enumerated exceptions, such as those conducted by the Children's Bureau, to the Public Health Service.

The only transfer which actually took place was that of the Civilian Committee on Combating Venereal Diseases in the Council of National Defense. Some time previously several of this committee's growing activities and personnel had been transferred to the Commission on Training Camp Activities where they had become the nucleus of the Section on Men's Work and the Section on Women's Work in the Social Hygiene Division. Neither of these sections, although dealing mainly with civilians, was transferred to the Venereal Disease Division in the Public Health Service. The new Division thus did not concentrate the civilian health activities. And the coördinating Social Hygiene Board became itself an agency directly involved in civilian social hygiene work, duplicating in many cases the activities of the Venereal Disease Division.

The multiplicity of social hygiene units and functions created an organization problem of first importance. Much time was spent in conferences on coördination and cooperation. Administrative, directing energy was diverted to playing with units, sections, committees, and boards, and in working out charts and diagrams of organization. There was also an occasional physical transfer of units, involving reorganization of files and lost motions. At one time,

despite the statutory coördinating Board, there was a Committee of Five (*à la* Versailles) to coördinate the coördinating Board with the other units. This does not mean that the multiplication of social hygiene agencies was destructive of all effectiveness. The very multiplicity of effort resulted in the infusion of much fresh blood, considerable invention, and variety of method.

There might have been much more actual confusion if there had not been a rather remarkably unified general program of attack upon venereal diseases. Developed first in the informal and official committees at the beginning of the war, it emerged as the official program of all the military and civilian agencies and was later transmitted almost intact to the states. This program consisted of medical, educational, law enforcement, and recreational measures which became known as the American plan for the attack upon venereal diseases.*

Reorganization After the War.—By the end of the war, however, it was apparent that for permanence some more

* A brief statement of the program is as follows:

I. *Medical Measures.*—The furnishing of free, accessible, expert treatment to every person suffering from venereal diseases or exposed to them. This included clinics and adequate hospital facilities. It also involved the isolation or necessary quarantine of all infectious venereal disease patients. Finally it involved the elimination as far as possible of venereal-disease nostrums and quackery, and the promotion of expert medical knowledge regarding the care and cure of the diseases.

II. *Law Enforcement.*—The repression and elimination so far as possible of prostitution, involving well-framed ordinances aimed at their regulation, and vigorous enforcement of such ordinances; the suppression of the red-light district and campaigns against rooming houses, dance halls, and taxi-cabs; provision for proper detention and reformatory treatment of sex offenders with the idea of reducing the number of prostitutes and, consequently, of the most dangerous carriers of venereal disease.

III. *Educational measure.*—Instruction designed for all groups in the population with appropriate and scientific information on the venereal diseases and the hygiene of sound living—this by preparation and distribution of placards, pamphlets, books, lectures, movies, and exhibits.

IV. *Recreation.*—Provision for wholesome, regulated recreation in place of unwholesome and morally-dangerous commercialized recreation.

logical arrangement was necessary. The essential program was that of salvaging the valuable features of the war-time administration and including them in the permanent agencies of federal government. The venereal disease activities of the Council of National Defense had been terminated before the end of the war. The Commission on Training Camp Activities, created solely for war purposes, had to be abolished. A natural division would seem to be to assign to the Army and Navy the work being carried on in or near the military camps in the interest of the military population, and to assign to the Public Health Service in cooperation with state departments of health all essentially civilian venereal disease activities. For necessary coöperation between the two types of work there was the *ex-officio* Interdepartmental Board. Immediate contraction did not, however, follow these logical lines. Boards and sections are more than colorless squares and circles on an organization chart. They are made up of human beings with jealousies and the will to expand—or at least to hold their own. Without ascribing any unusually bad qualities to the war-time social hygiene agencies and units it may be suggested that there existed among them the normal number of such human qualities.

In the Navy the solution was admirably simple and sound. A new unit was created, separate from the Bureau of Medicine and Surgery, called the Sixth, or Morale, Division. In this Division the recreational, social hygiene educational, and law enforcement activities of the Commission on Training Camp Activities were continued. A Social Hygiene Section, with an officer detailed from the Medical Corps at its head, took over and developed for peace-time uses among the sailors the Training Camp Commission's equipment of social hygiene motion pictures, pamphlets, posters, and exhibits. The Division has field officers, called aides for morale, reporting to it directly. They carry out manifold recreational, educational, and social service ac-

tivities as well as law enforcement and protective work. To this end they supervise hotels, rooming houses, dance halls, and other agencies of clandestine prostitution; they coöperate with local health and police authorities in the manner formerly done by the war-time social hygiene officers. In these ways the Navy has been able to incorporate into its own organization fairly completely the war machinery for anti-venereal disease activity.

The Army Section of the Commission on Training Camp activities dealing with work in the camps was quite properly transferred to the Section on Combating Venereal Diseases of the Surgeon-General's Office in the Army. This, in turn, in the 1920-21 reorganization became the main part of the Hygiene Section in the Sanitary Division.

The Law Enforcement Division of the Commission, with women's protective work, detention and reformatory activities, as well as the control of prostitution carried on inside and around the military zones, was for a time also turned over to the Army Surgeon-General's Office. A large part of the law enforcement activity was such, however, that the Army hesitated to engage in it. It presented the case of a service on behalf of the military population, yet carried out largely as police and protective work in civil communities accessible to military populations. This included cities at some distance from encampments. The Public Health Service had in the Venereal Disease Division a one-man law enforcement unit for advising local communities regarding the problem. But this federal health agency also hesitated to assume a task of direct field administration essentially police or detective in character.

As a result the Interdepartmental Board fell temporary heir to this function. The personnel of the Law Enforcement Division was detailed to it in April, 1919. It had previously taken over the supervision of aid to detention house and reformatories formerly under the same Division. At this point the Board became a direct administrative

agency with a considerable field force engaged in social-protective measures with women and girls in and around military establishments. Under decreasing appropriations the Board carried on the protective work until the end of 1922. The main activities of the field workers were of a detective nature—although they followed detection in most cases not by arrest and punishment under federal law, but rather by obtaining the aid and coöperation of local authorities in enforcing local or state law.

During the summer of 1919 the Board attempted to organize its field program in direct connection with the state and local departments of health. The proposal was made to all state health officers where there were large military populations that they take charge of the program, while the Board should furnish the personnel to serve under state direction. In eighteen states this coöperative plan was accepted. Others objected to such work on the ground that it was more properly a law enforcement function to be placed under the state attorney-general or the federal Department of Justice. It was, therefore, discontinued.

Substantially large sums were granted by Congress for these purposes during the years 1919-20, 1920-21, and 1921-22. But in March, 1922, the Board, aware that its continuance was precarious, voted to recommend that the Department of Justice be enlarged to provide for the work. A bill introduced in Congress proposed to carry out this recommendation. But it was not passed. Since the Department of Justice enforces only federal laws, the assumption of the function of investigating the violation of state and local laws would be contrary to the method of its organization. The work has, therefore, lapsed except in so far as states have assumed it. Although desirable as an activity it presents a rather difficult problem of organization. Probably its proper development would be through the Division of Venereal Diseases of the Public Health Service working informally through the Department of

Justice and state and local agencies. The Army itself, if it should adopt the Navy plan of organization, might also be able to do considerable work in this field.

The Sections on Men's Work and Women's Work of the Commission on Training Camp Activities were carrying on primarily civilian educational functions. There was, however, at the end of the war no immediate transfer of their activity to the Public Health Service. Rather, a considerable part of their personnel and equipment were transferred to the American Social Hygiene Association, a semipublic agency which for the time operated upon an enlarged scale with generous expenditures. Here was presented a case of duplication between private and public social hygiene educational agencies. To deal with it a liaison officer was established between the Public Health Service and the Association, and as time went on the two agencies developed a useful division of work resulting in a helpful relationship. The Public Health Service in the end fell heir to what was left of these Commission activities. Much of it was work no longer suitable for the peace situation.

The final disposition of the varied and ambitious war social hygiene program resulted, therefore, in a simple, logical arrangement in which the Army, Navy, and Public Health Service carried on appropriate activities. In the event of another emergency it might be well to consider whether a study of the machinery hastily constituted during the World War might not lead to the construction of a simpler organization. Even at the present time it is probable that there would be considerable gain if the Interdepartmental Board, shorn of direct administrative duties and with no secretariat of its own, were reconstituted to serve as an agency for coördination in scientific investigation, preparation of materials, etc., between the three agencies.

But entirely aside from the puzzling organization problems presented is the fact that the war greatly broadened

and accelerated the Army and Navy public health attack upon these important military diseases, especially by indicating clearly that for success there must be a combination of work inside the military and naval posts and stations, with work outside these limits where the diseases are contracted and carried.

The Uniformed Personnel Problem.—A last problem, which is so similar in the Army and Navy as to call for joint consideration, is that of the medical personnel. The difficulties of uniformed medical personnel are not those of patronage and politics usually connected with government employment. They are, rather, those of a professional bureaucracy and those arising from the necessity of accommodating medical and sanitary organization to the peculiarities of military and naval life. In some aspects they present the broader problem common to all public health personnel—*i.e.,* that of the contradictory needs for general knowledge and versatility in field work and the ever-increasing specialization required by the medical and sanitary techniques.

The Regular Medical Corps.—Both in the Army and in the Navy the medical corps is assimilated as far as possible to the regular system of pay, rank, grade, insignia, and authority which prevails in both uniformed services. In both departments also there is organized a separate medical corps with commissioned officers having titles and grades equivalent to the regular commissioned officers of the Army and Navy. As distinguished from the regular commissioned corps, entrance to which is by way of West Point and Annapolis, respectively, admission to the medical corps is by examinations to which only graduates of medical schools are eligible and which are based upon the training given in standard medical schools. Promotion within the corps, as in the other branches of the Army and Navy, is by a system of service and seniority grades, entrance being to the lowest grades only. The Army and Navy com-

missioned medical corps consequently have a definitely professional status removed from partisan politics. This does not mean that either is free from internal personal politics. But personal politics inevitably exists to some extent in all human organizations, especially in those like the fighting services where ability is not definitely and visibly tested by constant performance.

The Army and Navy Medical Schools.—Since the work of medical officers requires a special knowledge of the military and naval administrative system and the meeting of problems for which medical schools do not especially prepare their students, both the Army and the Navy have created their own medical schools which offer a semester's additional training for the entrants to the commissioned corps. It was under the administration of Surgeon-General Sternberg that the Army Medical School was organized. Since the entering medical officer must be not only a physician and surgeon, but an *Army* officer and a sanitarian as well, the six months' training offered to him includes military medical practice and the several branches of preventive medicine. The Naval Medical School, organized originally in 1902, has developed a similar curriculum with identical subjects.

The rapid training of civilian physicians for naval and military service during the war led to the expansion of these school facilities. In the case of the Army a part of the growth survived the war. At the new Walter Reed Medical Center (the Army Medical School) unusually good facilities have been developed for training in the more technical aspects of preventive medicine such as bacteriology, parasitology, and epidemiology. To this equipment there has been added as a war legacy the Carlisle Service Medical School in Pennsylvania, where a five months' course, either before or after the Washington training, is given in such field subjects as medical department administration, sani-

tary tactics, hygiene of troops, personal hygiene, and field sanitation.*

Field Service and Specialization.—After a preliminary training the young commissioned officer in either service is assigned successively to various posts with the partial purpose of giving him a sort of apprenticeship in different aspects of military medical practice. In the Navy this involves frequent sea duty; in the Army, frequent transfer from one to another military post. The commissioned medical officer in this way develops a certain Jack-of-all-trades medical ability which is suited to the emergencies of war operations as well as serving as an excellent method of training men for the superior administrative positions where a broad knowledge of the various aspects of the work is at a premium.

Such an all-round training of medical officers, however, has encountered the objection that with the rapid expansion of specialized knowledge in modern medicine, public health, and sanitation there is need of similar specialization or division of labor among the members of the commissioned corps. The double necessity of training medical officers for generalized work in the Army post and on shipboard and also for the specialized work of research and investigation forms one of the major personnel problems in the two medical services. Certain steps in the direction of recognizing specialism have been taken in both of them. Surgeon-General Sternberg introduced in the Army particular assignments for promising young commissioned officers which

* By recent authorization an alternative vestibule training for admission to the Army Medical Corps has been provided. The four continental general Army hospitals and the general hospital at Honolulu are authorized to accept selected candidates who are graduates of accredited medical schools for one year's interneship, after which they can be admitted to the corps without the regular Army Medical School training. In the first year twenty-three applicants were appointed to commissions in this manner. It may be regarded possibly as another means of recognizing specialization in training. (See *Report of the Surgeon-General, U. S. Army*, 1921, p. 109.)

allow unusual opportunities for specialized training in laboratories. The present tendency along this same line may be seen by quoting from the 1920 and 1921 annual reports of the Army Surgeon-General (pp. 93 and 239 respectively):

> Since the preservation of health among military personnel is the most important function of the medical department, whether in peace or war, it necessarily follows that *all* medical officers should have a very thorough knowledge of sanitation, including personal hygiene and the control and prevention of communicable diseases. . . . Young officers entering the service, after completion of their basic training at the medical department service schools, may expect such assignments for the first few years of their service as will give them this general experience. It is furthermore recognized that after a few years of active service (five years or more) a considerable number of officers will show a predilection for certain specialized lines of medical work and many of these officers will demonstrate their fitness for further training along such lines. In so far as military conditions will allow, it is the policy of the Surgeon-General to afford officers every facility for special training, when after a few years' service they have demonstrated their fitness for such educational opportunities. The advanced training to be given those who show notable aptitude for sanitation will be obtained in part by special details. . . .
>
> It is anticipated that within a few years a fairly large group of officers with this broad training will have been developed and will be available for duty as sanitary inspectors of divisions and large camps, assistants to corps area and Army area surgeons, and for other assignments requiring the special qualifications outlined above.

In the Navy, as was pointed out by the Surgeon-General in his 1920 report, the long-continued isolation from clinics, laboratories, and medical centers involved in general field duty by medical officers tends to unfit them for keeping up with general professional practice. The reserve medical officers, coming to the Navy from civil life as they did during the war, demonstrated the value in any medical organization of recognized specialists in surgery, in internal medicine, and in diseases of the eye, ear, nose, and throat.

The valuable work done by the officers detailed from the Public Health Service also made evident the need in a well-rounded medical corps for specialists in all forms of public health and sanitary work. To mitigate the difficulty of generalism there has been established in the Navy, as in the Army, the policy of specialized postgraduate training. Young officers at the Naval Medical School who, after the completion of their preliminary six months' course and their first sea duty, show unusual ability along certain lines are given a second course in medical specialties, and of these officers some who show the greatest aptitude are assigned for further work to civilian postgraduate medical centers such as the Mayo Clinic and the New York Eye and Ear Infirmary. For the development of specialists in public health work, however, no such provision has yet been made.

In both services, evidently, there is a recognition that in curative medicine and also in the varied techniques of public health work there is need for specialists. It would seem that this tendency must be developed as completely as possible if these agencies are to perform their manifold functions efficiently.

The Non-commissioned Corps.—The problem of specialization in military and naval medical services has not limited itself to those functions that can be performed by a medical officer trained in a medical school. The difficulties have probably been felt more keenly in the humbler tasks assigned to the non-commissioned or enlisted medical personnel. For the performance of the many subsidiary technical tasks in the camps, hospitals, and laboratories of the Army it was for many years the plan to assign enlisted men of the Army to the Medical Corps. In 1887 these non-commissioned enlisted men were organized into the Hospital Corps. In the Navy a Hospital Corps was created in 1898 for similar work. As sanitary science has developed, these hospital corpsmen have been required to perform not merely simple services in and around hospitals, but expert tasks

as anæsthetists and pharmacists, surgical, laboratory, and sanitary assistants. The conditions of service, the pay, and the life of enlisted men are such as to attract to the Army or Navy very little ability or training for this sort of technical work. In both branches the large turnover in corps membership made almost impossible the adequate training even of persons who possessed any aptitude for such work. A commentary upon the situation, which perhaps is extreme, is contained in Surgeon-General Gorgas's 1914 report in which a post commander is quoted as saying, "With the exception of the sergeant, the hospital corpsmen are the riff-raff of the Army."

During Surgeon-General Sternberg's administration there was an attempt to improve the situation in the Corps by organizing a training school for its members. In 1914 the Navy also inaugurated a Hospital Corps training school. Both corps have made attempts to improve salaries and the possibilities of promotion. In 1916, for instance, a statute was passed reorganizing the grades in the Navy Hospital Corps so as to provide for more regular promotion and, in the case of pharmacists, to allow advancement to the lowest commissioned grade. But these changes did not alter the fact that a non-commissioned hospital corps is a very poor means indeed of providing well-trained, capable technicians and expert assistants in military and naval, medical, and sanitary work.

The Nurse Corps.—In certain fields there has developed an alternative remedy for the difficulty just mentioned. It is that of organizing special corps of expert professional workers drawing their membership from other than the regular enlisted men and offering salaries, positions, and the accompanying prestige of the regular commissioned corps. One of the first specialties to gain such recognition by organization into a separate corps was that of nursing. Until the Civil War there were no female nurses in the Army. During that war, however, female nursing service devel-

oped prominently and successfully as an auxiliary to the medical organization. After the Civil War, when male nursing in the Army was again resorted to, it was demonstrated to be uniformly unsatisfactory. Again, during the Spanish-American War women nurses were admitted to emergency service. It was during this period that in civil life the regular training for graduate nurses and the professionalization of nursing were being developed. After the Spanish War experience, therefore, we find the organization in peace time of a regular Army Nurse Corps.

In the Navy the appearance of the Nurse Corps (female), as it was entitled, was delayed on account of the special difficulties of social assimilation of female nurses on shipboard. The corps was created in 1908, however, and by 1917 had taken over the nursing in the large naval hospitals and at the naval stations in the dependencies. During the World War the women's nursing corps was considerably enlarged and its members temporarily assigned to naval hospitals overseas and even to ships. Since the war they have been placed on troop transports and hospital ships of the Navy.

The existence of a separate corps of women nurses working with the regular commissioned medical officers and enlisted hospital corpsmen has raised in both Army and Navy important problems of relationship in the hierarchy of rank, insignia, and authority. During the earlier years the relation was rather a vague one. The nurses were without a commissioned officer's authority and rank, but were not in the inferior status of the regular Army or Navy enlisted personnel. In the actual emergency of war this vagueness became a source of weakness. Miss Delano, at the head of the Army Nurse Corps during the World War, reported that the effectiveness of the nurse in charge of the nursing service in an Army hospital required the possession of military authority over the orderlies and other non-commissioned personnel.[3] After much delay the problem was met

in the Army Reorganization Act of 1920, by giving the nurses relative rank and authority as follows:

> The superintendent shall have the relative rank of major; the assistant superintendents, director, and assistant directors, the relative rank of captain; chief nurses, the relative rank of second lieutenant; and as regards medical and sanitary matters and all other work within the line of their professional duties shall have authority in and about military hospitals next after the officers of the Medical Department.[4]

This Act, as is the case of many similar statutes regarding military personnel, extended the same relative rank and position to the Navy Nurse Corps.* This would follow from a provision of the 1908 Act creating the Navy Corps, to the effect that its members should be given the same status and pay "as are now or may be hereafter provided to members of the Army Nurse Corps." Some solution has thus been given to the problem of relating a professional and expert corps to the regular Army and Navy medical corps. And it makes possible in the Nurse Corps a career with considerable scope for advancement and prestige. In 1926 a liberal retirement law for the Army and Navy nurses was adopted.

During the war the Army established at its general hos-

* The relation of the officer in the regular commissioned medical corps to the regular Army officer presents another problem of personnel. The military regulations have provided that the line officer in command of any camp has precedence over the medical officer stationed there. In the Spanish-American War the Commission on Typhoid Fever of the Army found many cases where the camp medical officer's sanitary recommendations had been overridden by the line officer in command. As critics have pointed out, the distribution of authority between medical officer and regular officer is based upon the old idea of the medical officer's function as an agent for the cure of disease rather than as a preventive agent using police authority for the occasional attainment of his objects. The suggestion made by the Typhoid Commission, however, was not that of increasing the medical officer's relative authority, but of requiring more adequate education of regular officers in sanitary matters so that they would the more readily accept sanitary recommendations. There has, no doubt, been a considerable improvement in this regard.

pitals a training school for Army nurses, which has been continued. At the present time recruits for the Army Nurse Corps are trained at the Walter Reed and Letterman general hospitals, with affiliations that permit psychiatric training at St. Elizabeth's Hospital and other types of special training, such as public health nursing, gynecology, obstetrics, and pediatrics, at other special institutions. The 1920 report of the Navy Surgeon-General recommends the creation of a naval nurses' training school.

The Dental and Veterinary Corps.—A similar development of a separate corps has taken place in the case of the dental profession. As early as 1906 a Dental Corps was organized in the Army, and later in the Navy. The members of the Corps were commissioned officers with the grade of captain and lieutenant in the Army. During the World War, with a great expansion of dental personnel, the dental officers were organized under a separate division in the Office of the Surgeon-General. The Army Reorganization Act of 1920 gave to dental officers the same rights, privileges, credits of service for promotion, increased service pay, and retirement provisions, as those of regular members of the Medical Department. Prior to this Act appointment and advancement to the higher military ranks were allowed in the same relative proportions as in the regular Medical Corps.[5] The Dental Corps has thus acquired in both Army and Navy medical organizations the place of a professional corps with an attractive career.

Although there was no Veterinary Corps in the Army before the war the need that arose then for professional services of high caliber in this field led to the creation of a Veterinary Division in the Army Surgeon-General's Office and to the organization of the commissioned Veterinary Corps with rank, promotion, and status similar to that acquired by the Dental Corps.

The Sanitary Corps.—In the case of the three commissioned corps mentioned above, strong factors in favor of

their separate recognition were the professional standards, with definite institutional training and an examination and license for entrance to the accredited ranks of the calling, which had been developed in civil life. There remained at the outbreak of the war several types of expert service in connection with the work of both Army and Navy Medical Departments which had not been put on such a professionalized and standardized basis in civil life. As we have seen, the fighting services attempted to fill some of these from their noncommissioned or hospital corpsmen. Others it filled by the assignment of regular commissioned medical officers.

A set of specialties with primary interest for us developed rapidly in connection with the phases of the broad program of attack upon venereal diseases for which educational, publicity, sociological, statistical, and legal experts were required. Another specialty was that of sanitary engineering. We have seen that the Navy solved this problem differently from the Army. During the war it borrowed such personnel by detail from the Public Health Service and utilized the Commission on Training Camp Activities. After the war it created a non-medical division for social hygiene specialties. In the Army, however, a Sanitary Corps was created during the war (May 18, 1917). It contained commissioned officers who possessed special qualifications in social hygiene and other sanitary fields. At the end of the war active status in the Sanitary Corps was abolished and it was retained only as a reserve organization. The practice of using the regular medical officers for such of these specialties as are carried on during peace time is evidently being resumed. It is questionable whether this is in any sense a permanent solution of the problem.*

* The question of organizing separate corps connected with the Medical Departments of the military and naval services does not end here. There has been, for instance, considerable agitation for the inclusion of professional dietitians in the Nurse Corps. This would raise new problems of relative rank and promotion.

The Reserve Corps.—An ever-present contingency in all branches of Army and Navy personnel is that of providing for rapid expansion and contraction in case of war. The difficulty was never more acute than in the recent conflict when, in the case of the Army Medical Corps, the expansion was such that only 3 per cent of the total medical personnel were the regular medical officers, whereas 97 per cent were Reserve Corps officers drawn from civilian life for the period of the war. The system of expansion which prevailed during the Civil and Spanish-American Wars in both Army and Navy Medical Corps was that of employing so-called contract surgeons who served for a stated salary and for a definite period. The Spanish War showed quite clearly the defects of having to recruit an untrained medical corps to serve the volunteers. In 1902, in 1905, in 1906, and again in 1908 the subject of creating an emergency corps was brought before Congress, but without solution.

Shortly before our entrance into the World War through the agency of the National Council of Defense there was organized a Volunteer Medical Service Corps. In June, 1917, this was renamed the Medical Officers Reserve Corps. It provided an elastic system whereby "practically the entire medical profession of the United States became the Medical Department of the Army and Navy."[6] This reserve corps, surviving the war, has become accepted as a means of mobilization of the Medical Corps in case of emergency. Unlike the regular corps, entrance to it is not always at the bottom. Rather, persons with special qualifications are commissioned in positions commensurate with their skill and experience. There are some attempts to give periodic training to officers of this Reserve Corps.

In the cases of the other commissioned corps similar reserve organizations have been developed. This is true of the Dental Corps. In the case of nurses a slightly different device has been employed. By a permanent ar-

rangement the Red Cross recruits and enrolls the nursing profession into a great national nursing reserve system which can readily be mobilized into the Army and Navy Nursing Corps in time of emergency. Thus the Red Cross itself, an active, working organization, constitutes the nursing reserve organization. Such a mechanism is worth considering in the case of other professional corps

Public Health Personnel and the Uniform.—Our review of the personnel problems in the military and naval medical services leads to the conclusion that they have to do mainly with the adaptation of an increasingly complex and varied group of professional experts engaged in the promotion of health and the cure of disease, to the regular Army system of rank, uniform, and personnel. Before the days of preventive medicine and modern medical specialization a commissioned personnel of doctors, aided by enlisted men as assistants, might have met the situation. But the increasing needs of Army and Navy have required drawing into their personnel expert nurses, sanitarians, dentists, and other technicians and scientists. In order to obtain and to retain competent people it has proved necessary to offer positions which compare in salary, authority, opportunity for promotion, and general prestige, with similar positions in civil life. As yet the only way to accomplish this end seems to be that of offering the various specialized groups the military and naval commissioned officer status with its regular opportunities for promotion.

At first glance such a suggestion seems to be an awkward system of organizing personnel in these fields. No doubt to many technical and professional groups within the services the uniform, the epaulets, the grade, and social positions they imply are not desired or sought for as such. The adolescent love of a handsome uniform is probably reduced to a faint glimmer in the very sophisticated mind of a research dentist, vital statistician, or pathologist. The spirit

and life of the laboratory are far indeed from the spirit and life of the drill hall, parade ground, or naval station.

Yet in the Army and Navy, insignia and rank mean authority, and authority is necessary to gain the freedom to control one's work. The young bank clerk does not aspire to the uniform of a doorkeeper. Yet if the cashiers, vice-presidents, and other dignitaries behind the broad mahogany desks attired themselves in olive drab or blue, it is more than likely that he would aspire to a uniform and a commission as a first lieutenant if not a captain of finance. So the dentist and technician, if only for self-protection in the organized hierarchy of the uniformed services, are obliged to seek a regular place and grade. Rank and insignia are somewhat peculiar to the fighting services. And they remain the basis for one of the vexing problems of medical and health personnel. At the same time it should be noted that the granting of commissioned status has been one of the most effectual means of promoting a non-political and permanent organization. In fact, there has never been more clearly shown than in the commissioned medical corps what distinguished services and what splendid morale can be evoked by a carefully-devised and professionalized staff of officers working in the public service. [18]

As applied to sanitary and public health experts it is doubtful whether the personnel problem in either Army or Navy has yet been approached in a broad and statesmanlike spirit. The solution is surely not the use of the regular medical personnel for all of the specialties of public health administration, but rather, as in the case of the nurses and dentists, the gradual creation of public health or sanitary corps for the newer tasks of preventive medicine.

CHAPTER VII

MEDICAL CARE OF THE WORLD WAR VETERANS

THUS far we have surveyed the experience of the American national government in providing medical and hospital care for three special groups—the merchant seamen, the sailors, and the soldiers. In each case as medical care has developed it has involved a disease-prevention program of significance in any study of federal public health activity. The sick and disabled ex-service men and women of the recent World War form another group for which the federal government has undertaken medical provision.* The provision for this group, as distinguished from those already described, has been almost entirely that of care and cure rather than of prevention, and cannot, therefore, claim the same reason for examination.

But the medical care of the veterans has led to the building up of the largest national bureau engaged in public medicine. At one time or another since its origin the task has involved practically all of the existing federal health agencies and has raised in critical form the question of their proper relations to one another and to the rest of the national administration. It has raised also, and in some cases left still unanswered, questions regarding administrative unification, coördination, centralization, personnel, and

* The terms *ex-service men* and *war veterans* are used throughout this study as abbreviations for the groups who are beneficiaries of the War Risk Insurance Bureau (now Veterans' Bureau), including sick and disabled soldiers, sailors, marines, Army and Navy nurses, male and female.

the use of institutional equipment. Finally in its evolution there is revealed the complex machinery existing in our national government for the framing of administrative policy—in which Congress, the President, bureau chiefs, and private agencies have a varying part. For these reasons the history of the care of the war veterans is a proper part of any analysis of federal health organization and will therefore be given a detailed examination in the pages that follow.

Army Hospitals and the War Program.—The origin of the veteran relief program is to be found in Army and Navy developments during the war. In the preceding chapters we have seen how the military administration was organized for handling the medical care and health of over two million persons, part of whom were to be fighting, wounded, and dying, and practically all of whom were to be intermittently in motion over great distances, incurring all kinds of diseases due to change of habitat and methods of living. The hospitalization aspect of the military war program, however, since it was the first step in the evolution of the care of the wounded veterans, has been reserved for treatment here.

Before the war the Army Medical Department had developed for its normal uses two types of hospitals. First, there were the post or station hospitals, usually small affairs in charge of the post surgeon and designed to meet the average needs of the local military community. Secondly, there were two kinds of general hospitals. The more numerous were located at large centers of Army population, frequently near to a medical center. To these were transferred from the post hospitals cases of a permanent or serious nature. At the time of our entrance into the war there was one such general hospital at San Francisco, one in Hawaii, and one in the Philippines. The second type of larger hospital was that designed to deal with special types of illness, such as the tuberculosis sanitarium at Fort

Bayard, New Mexico, and the Army and Navy Hospital (administered by the Army) at Hot Springs, Arkansas, for patients with illnesses relieved by the medicinal spring waters. The specialized Army needs were further served by St. Elizabeth's Hospital (the Government Hospital for the Insane) located at Washington, D. C., which, although under the Department of the Interior, accepted Army neuropsychopathic cases in accordance with a permanent contractual arrangement.*

When the war came, neither the Army posts nor the post hospitals were of any considerable use in caring for the rapidly multiplying Army population. Located in widely scattered and isolated spots, useful, no doubt, as strategic centers for quondam Indian warfare, and maintained by the pork-barrel tendencies of Congress, their deficiencies as mobilization camps were at once apparent. It became necessary to create as quickly as possible great army camps near centers of population and transportation. The necessity for speed in their construction, the war need for conserving the more durable building materials and labor, and the uncertainty as to their possible after-war uses dictated the erection

* St. Elizabeth's, as we have seen, makes this regular contractual arrangement also with the Navy, the Public Health Service, the District of Columbia, and the Department of Justice in charge of federal prisoners. As it is one of the few attempts to consolidate in one institution the entire national hospital and medical organization for the treatment of an important special type of disease, it presents an interesting form of governmental hospitalization. Although nominally it is under the Department of the Interior, the relation is little more than a formal one. The hospital is organized under a board of visitors of which the Surgeons-General of the national medical services are members. Its actual management is under a superintendent who for many years has been one of the foremost American experts in mental diseases. In addition to its regular medical staff, assignments are made to it from the three uniformed medical corps. Before the World War veterans increased the quantitative problem of dealing with federal mental cases, it proved to be an ample and satisfactory means of hospitalizing wards of the national government afflicted with mental diseases. Its average bed capacity at the end of the war was about 3,700. The Veterans' Bureau now has its own separate hospitals for mental cases.

of semipermanent, non-fireproof buildings at the camps—or cantonments, as they were called. This construction policy was naturally applied to the military hospitals at each cantonment. Thus there came into being for direct war uses seventeen new cantonment or post hospitals, located in direct relation to war camp needs, built of temporary or semipermanent materials at considerable cost and furnished with complete medical equipment. Considering the purposes for which they were intended, they served passably well.*

These hospitals supplied only a part of the war hospital need. Emergencies for hospitalization overseas and for port and embarkation hospitals were met by means which do not concern us here. But as the war progressed there appeared an expanding need for developing the Army general hospital equipment for the more extended care and treatment of returning sick and disabled soldiers. Here was in many ways the problem most vexing to the Army medical authorities. The first difficulty was that of estimating the volume of patients in need of care. No one could foresee the war's termination. It was necessary, therefore, to engage upon an ambitious program of providing general hospital facilities for an indeterminably large number of wounded and chronically sick soldiers. And as long as war continued it was to be assumed that all returned soldiers would be under the care of military medical authorities until cured.

In entering upon this program a second difficulty was encountered in the limitation on building construction made necessary by mobilization of men and material for the most

* The sensational charges of neglect and mistreatment of the sick in the Army camps, especially during the influenza epidemic, had undoubtedly some basis in fact and might seem to indicate inadequate Army camp hospital facilities. On the whole, however, the defects may be charged to the vast size and emergency nature of hospitalizing a draft army during a widespread epidemic and to the weakened personnel and occasionally inadequate equipment consequent upon the process of very rapid expansion.

direct war uses. It led to the expansion of facilities by leasing existing civil public or private hospitals, by transfer of hospitals and of buildings transformable into hospital uses from other federal governmental agencies, and by remodeling all sorts of structures. Early in the war a Hospitals Commission was created in the Army which had for its task a survey of the various types of hospital needs, and of available or possible buildings and sites. This, the first of several commissions, laid down guides for hospital location accepted by all the experts coming later: proximity to centers of population and to the homes and relatives of the soldiers.

Although it was foreseen that existing civil hospitals could not be used indefinitely in time of peace, since there was no normal excess of such facilities, nevertheless in the emergency several such plants were leased for the duration of the war and one year afterward. Some of the leased hospitals were modern and well-organized plants, as the Polyclinic Hospital in New York City. Others were not so desirable. Many of those available were so small and so scattered as to make the problem of administration under a common head wasteful. The second emergency source of sites and buildings was property belonging to other federal departments not designed originally for hospital uses. Sixteen such structures were obtained by transfer and reconstructed into hospitals. The most important of them was the recently abandoned Carlisle Indian School, which was transferred from the Interior Department. A last emergency source was property, such as factories, summer hotels, department stores, exhibition halls, infirmaries, and almshouses temporarily leased from private or local groups and reorganized more or less satisfactorily into Army hospitals. Excluding the pre-war Army general hospitals, which were of course used to capacity, there were at the time of the Armistice twenty-five leased properties from various sources either ready for use, in course of preparation, or

definitely projected. At this time the Army was operating altogether thirty general, and eight embarkation, hospitals.[1]

The sudden and unpredicted ending of the war in November, 1918, made necessary an immediate revision of the Army hospital plans. It was evident that the projects under way for general hospitals were for a much larger volume of patients than would actually need to be provided for. A process of demobilization of projects took place, therefore, construction on twenty of the prospective hospital plants being stopped. So also the cantonment hospitals were released from their regular uses by the discharge of men in training. For the first few months after the Armistice, however, these and the other Army hospitals were heavily taxed in providing for returned soldiers during the process of demobilization. Thus it was not until well into 1919 that the discharge of patients and soldiers became such that the expanded war equipment of the Army was available for other uses or for release to the original owners.*

During the months of demobilization it became evident that medical and hospital care of the wounded and disabled war veterans was thenceforth to be mainly a problem with which national civil governmental agencies rather than the Army must grapple. Disabled and sick soldiers, it is true, were offered by the Army the opportunity to remain under enlistment for treatment. Many suffering from acute injuries and illness did so. But others, who might well have stayed on, sought discharge at the earliest possible moment in order to be rid of Army discipline and to return to their homes. A larger group—those with diseases of a more chronic nature, principally tubercular and mental patients, plainly in need of prolonged treatment—preferred early discharge also. In these cases it was evident to those in touch

* For a time a further uncertainty in the situation was caused by the War Department's proposal that the pre-war Army post system be abandoned in favor of larger and more centrally located camps. Such a plan, however, was not adopted.

with the situation that hospitalization under civilian auspices, by the gain in morale consequent upon the removal of the patients from the scene where their troubles originated, would be a favorable factor in their recovery. Another element of importance was that many in the military medical personnel itself, which was made up for the most part of civilians who had enlisted for the period of the war, were eager to resume their old pursuits. Furthermore, there was available to the disabled veterans a regular system of medical relief under the auspices of the War Risk Insurance Bureau. Almost of necessity, then, this civil agency inherited the hospital burdens and problems of the Army. So it was also with the sister fighting service, as will now be seen.

Navy Hospitals and the War.—The Navy brought to the war a hospital equipment similar to that of the Army. On each naval vessel a small hospital dispensary in charge of the Navy surgeon provided an organization for local or station purposes equivalent to that of the smaller Army post hospitals. There were also seventeen larger general hospitals similar in function to those of the Army located at prominent ports in connection with navy yards, training stations, or naval stations.[2]

These larger general hospitals became the nucleus of war expansion in hospitalization more often than was the case in the Army. Where Navy operations led to the temporary creation of new centers of sailor population semipermanent buildings or units were added to the existing plants. The result of expansion was that the eighteen pre-war general Navy hospitals with a provision of 3,000 beds had increased by June, 1919, to twenty-five hospitals with 21,000 hospital beds, not including a very considerable development of Navy hospitals at foreign stations overseas where the fleet was operating.

During the war the Navy did not develop, as did the Army, any program for the permanent care of its pros-

pective disabled sailors. The likelihood of a large number of such cases was not great. And for hospital treatment along lines of reconstruction, rehabilitation, or reëducation, the Navy's patients were detailed to the Army hospitals. Until the end of 1919 its blind patients were transferred for treatment to the Army General Hospital at Roland Park, Baltimore. When the end of the war came, therefore, no very severe contraction was necessary. The war-built hospitals at places not needed thereafter were abandoned (at Cape May, New London, Philadelphia, and Gulfport, Mississippi). Later they were transferred to the Public Health Service for veteran uses. The remaining hospitals were devoted to other uses or continued in connection with the pre-war hospitals. After the war, consequently, the Navy had for permanent uses nineteen hospitals in the continental United States and six in the stations beyond the seas, a gain of eight more or less permanent but hastily constructed buildings. With the exception of the four plants resembling cantonment hospitals, its war-time hospitalization was not a factor in the handling of the problem after the Armistice.

The Organization of Veterans' Relief.—Provision of veteran medical and hospital relief under civilian agencies was begun before the end of the war. A series of Congressional enactments, inspired by a statesmanlike desire to avoid the waste and demoralization of pensions which had furnished the after care of previous American wars, created a fourfold system of protection and care for the uniformed participants. These Acts, passed during 1917-18, provided first a system of allotments of parts of salary during service to family dependents; second, a universal, regular, and compulsory system of illness, disability, and life insurance with money benefits running through the period of war service and providing thereafter for illness, death, and disability incurred as a result of war service; third, a program of free vocational training and direction to all dis-

abled veterans; and finally, provision for medical and hospital care of beneficiaries under the insurance system. Too much praise cannot be given for the essential humanity and wisdom of such a legislative policy.

The War Risk Bureau.—Administration to carry out this design was not, however, so successful. A major problem to be faced at the outset was that of organizing agencies to carry out the several purposes of the statutes. The original principle of organization adopted by Congress apparently was a double one: first, the concentration of responsibility for veteran aid and relief in one bureau; second, the utilization by this bureau of the existing governmental units carrying on similar functions rather than the creation of new and separate veteran administration for the functions of relief.

The Pension Bureau, although already organized for aid to ex-soldiers, was plainly not equipped by experience, spirit, or personnel for the administration of the life, health, and accident insurance provisions of the new program. There had been created in the Treasury Department, however, a War Risk Bureau to administer governmental insurance for American vessels liable to war losses (Sept. 2, 1914, 38 U. S. Stat. L. 711). On June 12, 1917 (40 U. S. Stat. L. 102), the activities of this Bureau had been extended to include insurance of the crews against disability or death while operating in the war zones. By the Rayburn Act of October 6, 1917 (40 U. S. Stat. L. 406), which established the insurance system for Army and Navy personnel, the new task was given to this recently created Bureau.

The work of personal insurance of soldiers and sailors, of course, overshadowed the young Bureau's existing activities, making necessary an enormous and rapid growth of personnel and equipment. Although the expansion had the advantage of war-time incentives to patriotic public service in competition with private enterprise, it also labored under great handicaps created by the war situation. These

were well described by Congressman Burton Sweet, as follows:

> This Bureau was organized during the confusion which is always part of every war. It was not possible at that time to get efficient and competent help. There was no opportunity to train them for the tasks which they must perform. The Government was being organized for war. The flower of our manhood was going into the Army; the business interests of the country were endeavoring to meet and adjust themselves to the demands of war.
>
> Armies had to be raised, cantonments had to be constructed, ammunition had to be manufactured, ships had to be built, and the organization of the Bureau was accomplished under unusual circumstances and at a time when the attention of the people of this country was centered upon the military operations and the winning of the war.[8]

The originally logical location of the Insurance Bureau in the national financial department, the Treasury, became of doubtful advantage as both Bureau and Department expanded. In its history no administrative leader appeared in the Bureau or elsewhere in the Treasury who was able to inspire any widespread belief that, admitting the difficulties, as much was being accomplished as the ablest leadership might achieve. The reputation of the Bureau from the first was one of inefficiency, slow action on account of red tape, and incompetence. It is impossible to determine how completely its reputation was deserved. In the whole situation there are too many imponderable factors.

The Federal Board for Vocational Education.—The Rayburn Act consigned to the War Risk Insurance Bureau not only the administration of the cash benefit provisions of the insurance scheme, but gave to it the responsibility for furnishing medical and hospital relief and vocational training. As the Bureau was frantically engaged during its first year in managing the difficult business of family allotments, however, it did not proceed at once with an organization of the medical and educational aspects of its work. Instead, it proceeded on the principle of assigning

these functions to other appropriate federal agencies already in existence.

A committee interested in the problem of vocational re-education of the disabled veterans, which was called into being during 1917-18, recommended that the educational task be given to a commission or board consisting of the Surgeon-Generals of the Army and Navy, representatives of the War Risk Bureau, the Federal Board for Vocational Education (itself a commission or board), and the Department of Labor (this last because of the existence of the Federal Employment Bureau therein). Fortunately this example of war super-coördination was not adopted. Congress in 1918, by the Fess Act (40 U. S. Stat. L. 617), placed the administration of vocational rehabilitation in the hands of the Federal Board for Vocational Education. Although it was in line with the policy of utilizing existing agencies, this Act altered the other principle of concentrating all final responsibility in the War Risk Bureau.

The Federal Board was another newly-created organization (February 23, 1917. 39 U. S. Stat. L. 929) designed originally to carry out the provisions of the Smith-Hughes Act, which distributed federal money grants to the states in aid of vocational education. The Board consisted of the Secretaries of Agriculture, Commerce, and Labor, the Commissioner of Education, and three citizens appointed by the President and Senate—one to represent manufactures and commerce, one agriculture, and one labor. Partly *ex officio,* partly an executive board, and entirely unrelated to the Treasury Department, it had as its real executive a paid secretary.

Although vocational training was assigned to the Board the administration of the training was definitely connected with the War Risk Bureau by the provision that the men eligible for such training should be those who had been awarded compensation by the War Risk Bureau. Such a vital connection of two otherwise administratively unre-

lated agencies led soon to difficulties and to a further divorce of their veteran activities. The congestion of cases of those applying for compensation was extremely great. The machinery of the War Risk Bureau became badly in arrears and the Federal Board, forced to delay its training until the other bureaus acted, desired naturally to be relieved of the initial handicap. Consequently an amendment to the Fess Act, known as the Darrow Bill, was drafted and passed July 11, 1919 (41 U. S. Stat. L. 159). By this Act the Board was given independent determination of the eligibility of war veterans for vocational rehabilitation and training. Thus there was evolved an organization of two independent agencies, not in the same Cabinet department, carrying on work with the veterans; and their failure to coöperate effectively in their related tasks was met by a system of duplicate examinations for eligibility to relief. As in so many cases in the history of the legislative record in dealing with acute administrative problems, the solutions worked out by these statutes proved to be a mere shuffling of the cards, substituting new administrative defects for old ones. The Federal Board soon acquired in its conduct of veteran rehabilitation a reputation for incompetence and delay similar to that of its sister bureau.

Medical Relief and the Public Health Service.—We have seen that during the war the Army and Navy provided hospital and medical care for their own sick and disabled veterans. Even before the Armistice, however, the civil health agencies were drawn into the task of veteran relief. The Act of 1917 had followed the principle of concentrating responsibility by providing that the War Risk Bureau should select such governmental agencies as it saw fit for medical and hospital care. From the first it turned for this work to the Public Health Service, located in the same Cabinet department, which thus became the third

of the federal administrative units to be concerned with ministering to the ex-service men.

The Service differed from the two other agencies in that it was a long-established bureau with trained personnel and a seasoned medical and hospital organization. Like the others, however, it soon found that its new functions dwarfed in magnitude its existing work of medical relief and its public health activities. After the War Risk Bureau had voluntarily established contractual relations with the Service for hospitalization, Congress—as before in the matter of vocational training—abandoned the original plan of concentrating responsibility in one bureau. In subsequent statutes, as we shall see, it created the Service as an independent veteran hospitalization agency. Its twenty-five rather small and scattered seamen's hospitals and one tuberculosis sanatorium proved to be only a very small part of the equipment necessary for the new task. As in the case of the two other bureaus the new activity, entered into in haste and amid great handicaps, was destined to incur more criticism and condemnation than any other work during its long history. How much it deserved this unpopularity is a matter that can be better determined after its four years of activity have been reviewed.

The First Administrative Program for Hospitals.—The first acute need for civilian veteran hospitals appeared during 1918. Many men who had been accepted by the draft boards were, after the more careful examination at the Army camps, later rejected for disability and honorably discharged from military service. These men, most of them tuberculosis cases, were entitled to compensation and medical relief under the War Risk Act (with the amendment of 1918). But since they were civilians they were not eligible under the law to enter military hospitals. During the war, moreover, these hospitals were busy meeting the needs of the enlisted men.

On July 30, 1918, the Director of the War Risk Insur-

ance Bureau (William C. DeLanoy) addressed a letter to the Secretary of the Treasury calling attention to the fact that his Bureau was already using to the utmost the existing facilities of the Public Health Service for such civilian patients.[4] (The number of beds under the management of the Service when it took up this work was 1704.) He requested that the Service undertake at once to provide "sufficient bed space, whether by the enlargement of hospitals now existing or the construction of new buildings" [5] for an increasing number of patients. On August 10, the Secretary communicated this request to the Surgeon-General of the Public Health Service. Before acting upon it the Surgeon-General called a conference of officers of the Army, Navy, and Public Health Service to make estimates regarding the number of patients anticipated during the years 1918 and 1919 and to draw up conclusions as to the best means of supplying the necessary hospital accommodations. A continuing committee of officers appointed by the conference investigated both matters thoroughly and reported to the Surgeon-General on September 11. Acting upon their report, the Surgeon-General recommended to the Secretary of the Treasury, and he to Congress in a letter of September 20, a program of immediate relief.[6]

The experts' committee had estimated that in addition to the existing facilities, which could care for other diseases, there would be needed 13,000 extra beds for the care of discharged tuberculosis patients.* (The estimate was for 1918 and 1919 and predicated the continuation of the war.) To provide these beds would require an expenditure of $26,000,000. But the committee recommended an immediate and emergency provision of only 5,000 additional tuberculosis beds. The Secretary's letter to Congress in-

* "Beds" here mean provision of hospitals, outbuildings, equipment, etc., within which beds could be furnished to the number indicated. The term is a technical one used as a basis for estimating hospital construction and accommodations.

cluded the draft of a bill, based upon the committee's proposals, providing an appropriation of $10,500,000 for such construction and reconstruction.[7]

This original proposal of the administrative experts for hospital construction is typical of those made later by officials of the interested administrative departments. The principles underlying it deserve detailed examination. First of all it is to be noted that although existing facilities were to be utilized as far as possible to meet the needs of general, medical, and surgical cases, new construction was requested for tuberculosis sanatoria. With the end of the war and the appearance of a large number of mental cases, constituting roughly one-third of the total, proposals for new sanatoria were added for this class of beneficiaries. From first to last, in the minds of the experts, the veteran hospitalization problem involved new construction of permanently built sanatoria designed especially for men suffering from diseases which yield only to prolonged treatment in a favorable environment. The criteria suggested for the location of the sanatoria are contained in the following extract from the Secretary's letter:

> One of the primary considerations in locating these sanatoria facilities is to have them in suitable climates and within economical travel and purveying areas, and in such sections of the country that beneficiaries need not of necessity be widely separated from their native surroundings or homes.[8]

The principles of location were more fully developed in the hearings on the first hospital bill. The Service officers put little emphasis on the factor of climate. Dr. Banks, detailed from the Public Health Service to serve as chief medical adviser of the War Risk Bureau, made the point that a man should recover from tuberculosis in the climate in which he expected to spend the rest of his life.[9] More important than high and dry altitudes were held to be matters of regimen, diet, the patient's contentment and peace of mind.

It followed that nearness and accessibility to homes by location at or near transportation centers were stressed as important criteria in the selection of hospital sites. It followed also that if men were to be near their homes huge hospitals, although more economical to operate, were to be discouraged in favor of smaller units.

In spite of some minor variation in opinion as to type of construction there was consistent agreement among the experts on another principle—*viz.*, that permanent sanatoria should be constructed in pleasant, healthful surroundings and that such surroundings, usually found in suburban or rural locations, were more important than nearness to medical centers.

It was also evident in this early recommendation that the Service advocated the location of the new facilities with an eye to their eventual transfer for use as marine hospitals when veteran relief should be terminated.[10] An indication of this policy is seen in the tentative measure drafted by the Secretary which provided that two-fifths of the appropriation should be expended on construction at existing marine hospital sites and that two new hospitals should be located at Norfolk, Virginia, and at Seattle, Washington. (In both these latter places the growth of shipping indicated the desirability of providing marine hospital facilities.) Although in later recommendations this principle was not always stressed, yet by the White Committee and in all administrative recommendations it was urged as a minor factor to be kept in mind. In practically all respects, however, the early recommendations of the experts stand almost unaltered as war needs changed to after-war needs. An obvious deduction from the principles as enumerated in the recommendations, involving as they did a weighing of so many complex factors, is that the designation of sites of hospitals is a proper matter for a board of experts exercising wide discretion.

Dawson Springs.—It was perhaps unfortunate that Congress did not immediately take up the well-considered recommendations transmitted in the Secretary of the Treasury's letter. Instead, a single project for a sanatorium at Dawson Springs, Kentucky, became the occasion for the first veterans' hospital debate. At about the time the Secretary of the Treasury transmitted the program of the experts, a group of Dawson Springs citizens made an offer of land to the Government provided a veteran hospital should be located thereon. This proposal, initiated for local reasons, was presented to the War Risk Bureau with the support of the House members from Kentucky. The Bureau sent its chief medical adviser, Dr. Banks, to investigate the site. Upon his return he made a favorable report, which was concurred in by the officials of the Public Health Service in charge of hospitals. The Dawson Springs site, therefore, was added to the program for construction which they had recently prepared. The bill was supported with favorable testimony later in the House hearings both by the Public Health Service and by the War Risk Bureau officers.[11]

Representative Kincheloe of the House Kentucky delegation on September 11, 1918, introduced a bill for the construction of the sanatorium at Dawson Springs on the donated site at a cost of a million and a half dollars (H. R. 12917, 65th Cong. 2nd Sess.). Hearings were held before the Committee on Public Buildings and Grounds on September 18. While the committee was considering the general hospital plan contained in the Secretary's letter this single project, indorsed by a unanimously favorable report, came before the House.

When debate was begun on October 3, the Democrats were in control of the House. It was unfortunate that the project was in Democratic territory and in charge of a committee member of that party from Kentucky. Rightly or wrongly, from the very first the bill took on the char-

acter of a partisan, sectional matter. Delayed in its first appearance by minority party opposition it was taken up a second time immediately after the reassembling of Congress for the short or "lame-duck" session in December. In the meantime the Republicans had been the victors in the November election.

The first and most serious argument made against its adoption was presented by the Republican leaders, Mr. Green of Iowa and Mr. Gillett of Massachusetts, who attacked it as an isolated piece of legislation when what was really needed was a general program.[12] Although the Democrats in charge pointed to its endorsement in the hearings by the administrative bureaus as a proper part of the general program, there existed the clear suspicion that it had about it the odor of pork. This feature of the debate divided the House almost solidly on party lines, an unusual thing in minor legislation. The lines were broken only when Representative Mann of Illinois offered an amendment substituting for the specific designation of Dawson Springs a Presidential commission to choose the site. This compromise led to the final passage of the bill by the House with only a few dissenting votes.

The specific location of hospitals by Congressional statute as opposed to discretionary administrative location appeared as a major question in this as well as later debates. Undoubtedly the Mann Amendment was based upon the sounder principle. The Dawson Springs bill was tactically an error. It was unfortunate that the interested and expert executive agencies sponsored so readily the initial presentation of their hospital construction program in this form.

The second and third arguments used in the House debates against the Dawson Springs project appeared throughout subsequent discussions. One was the persistent tendency to question administrative opinions regarding the relative importance of the factors of climate and accessibility in hospital location. From the first the experts agreed that

Dawson Springs not only had a reasonably good climate for tuberculosis, but that it was accessible to the veterans' homes.[13] Members of Congress, however, imbued strongly with popular notions regarding high and dry climates as an aid in tuberculosis treatment, and in some cases with a lively sense of the value of location in their own constituencies, sang the praises of Arizona, southern California, and other resorts, condemning Kentucky out of hand as unfit for a veteran hospital. It seemed for a time as if the salubrious Republican locality of Amarillo, Texas, might be substituted for Dawson Springs. If mineral springs were desirable in connection with such hospitals, Representative Wood of Indiana was not slow in pointing out that French Lick and West Baden were second to none. Some, if not all, of the members of the House were evidently willing at this point to substitute their hasty, amateur judgments for the wisdom and the impartiality of administrative officials. The Mann Amendment fortunately saved the first veterans' hospital bill as it passed the House from becoming an undignified, partisan scramble for pieces of pork.

The third argument against the committee bill proved later to be of more crucial significance. It involved the opposition of Congressional and administrative judgments regarding the comparative wisdom of new hospital construction and adaptation of existing hospital facilities. Between the first and second debates on the measure the war had come to an end. Chairman Clark of the House Committee in charge, stating at the opening of the debate in December that the new construction of tuberculosis sanatoria was needed fully as much as during the war, urged the bill's immediate passage. But he failed to still the questioning of the House members. Representatives Mondell and Wood suggested confidently that as the demobilization of troops made the Army camps and Army hospitals available for veteran uses, no new construction would be necessary.[14]

Thus in the first debate over post-war hospital construction the issue was clearly joined between the administrative experts of the War Risk and Public Health Bureaus charged with the immediate responsibility of furnishing care and cure to the disabled veterans, and the members of Congress looking at the problem from the viewpoint of taxpayers and constituencies, as well as of disabled soldiers. Who should locate the hospitals, where they should be located, and what kind of hospitals, if any, were needed, became matters of severe disagreement between the two branches of government.

The subsequent history indicates that in order to solve this difficult administrative problem promptly it would have been necessary in some way to develop leadership or cooperation which would bring these two points of view together and effectively translate expert judgment into the popular or Congressional judgment. In our system of government such a result is sometimes reached by cultivating a spirit of legislative deference to expert opinion; sometimes it is accomplished by active and able committee leadership which, absorbing administrative knowledge, wins the Houses to its view by ingenious parliamentary management and able floor leadership. Occasionally the end is obtained by an effective organization of the forces of expert opinion inside and outside the administration so as to produce a united and determined front in the face of the amateur opinions of the legislators. And at times a chief executive, by pressure or persuasion, educates the legislature to accept the views of the experts. None of these things happened in this instance, and the lack of leadership and cooperation produced for a time disastrous results for the deserving veterans of the World War. The sins of omission by those in strategic positions remained for months and years of a grievous character.

When the delocalized Dawson Springs bill passed the House and reached the Senate (December 11, 1918) it was

overtaken in the Committee on Public Health and National Quarantine, to which it was referred, by the general program for sanatorium construction presented in the letter of the Secretary of the Treasury. There, by being included as an item in the general program, it lost its separate existence. We shall now, therefore, take up more directly the fate in both Houses of the general program of the experts.

The 1919 Hospitals Act.—The House Committee on Public Buildings and Grounds, which had reported out the Dawson Springs bill, acted promptly on the Secretary of the Treasury's letter of September 20. A bill was introduced September 30, 1918, embodying his recommendations (H. R. 13026). At the committee hearings in October the officers of the War Risk Bureau and Public Health Service presented favorable testimony.[15] Since the hearings were not completed at that session they were renewed in the post-war session in December, the same officers testifying that the end of the war had not altered the need for permanent construction on the lines laid down by the report of the committee of experts.

It was already evident that the task of caring for the sick and disabled veterans would be handled largely by civilian agencies. But it was not at all evident that the Army and Navy equipment already in use would not be ample for their hospitalization. In both House and Senate hearings this was the main subject of discussion. Dr. W. D. Stimpson, at the head of the Hospital Division of the Public Health Service, who was familiar with the emergency character of the Army hospitalization equipment, explained the inadequacy of such hospitals for veteran uses. Although he did not condemn utterly the cantonment hospitals or cantonment buildings for temporary uses, he pointed out clearly their undesirability in the program of prolonged care which was involved in providing for the tuberculous war veterans. He pointed out likewise that many of the cantonments were

on leased ground, that they were temporary wooden structures with grave fire dangers when only the hospitals were occupied, that their natural outlook as abandoned camps was dreary and carried with it distasteful associations to patients in need of the good morale essential to recovery and who came to the hospitals by voluntary choice.[16]

Not satisfied with this, the committee called in the head of the Hospital Division of the Army. He went over the Army equipment, pointing out that the four general hospitals and the post hospitals would be needed permanently by the Army and thus would be unavailable for veteran uses. He verified the statements regarding the cantonments as being partially on leased ground and unsuitable as permanent sanatoria. He inventoried the leased and adapted general hospitals secured during the war, indicating that many of them were liable to be returned at the end of the war and that others were unsuitable. Pressed for a statement as to hospital properties immediately available for transfer to the Public Health Service, he mentioned two of the leased structures which could be transferred at once, adding with a significance that was lost on some of the committee members, "These are the two least desirable properties we now occupy." He gave it as his opinion, however, that, although the cantonment hospitals would be needed by the Army for six months more, with painting and plastering they could be made of some use for the veterans.[17] As a cautious administrator he, along with his Army colleagues, was careful not to take the initiative in advising against the method the committee was favoring, that of using the liquidated Army equipment. Although his descriptions of properties were identical with those of the officials of the Public Health Service, he refrained from suggesting a policy. This was interpreted later as a disagreement between the experts.

The House Committee reported the bill out on December 21. It adhered to the Secretary's plan except for an

amendment providing for the transfer of buildings from the War and other federal departments.[18] A minority report signed by four members, however, more nearly foreshadowed the policy adopted by Congress. This report, using the Army testimony to its purposes, proclaimed that there was no need for new construction. In the first place it estimated that the number of patients would not be large; in the second place it held that some Army facilities could be transferred to, and others utilized on a contract basis by, the War Risk Bureau. The committee made much over the statistical statement that the Army had 70,000 vacant beds, in spite of the fact that in the hearings this figure had been adequately explained as including unsuitable beds listed as available for war emergencies. A comparison of the arguments in this report with the printed testimony gives striking witness to the valor of ignorance exhibited at times by Congressmen and the disingenuous use of testimony which, taken as a whole, leads to opposite conclusions. The report did not immediately prevail. Although the need for new construction was debated on January 25, at which time the bill came up for discussion,[19] it was passed with slight amendment as recommended by the majority, on January 27.

Meanwhile the Senate Committee on Buildings and Grounds was preparing its own bill on the subject, to which were added on February 3 the Dawson Springs bill transferred to it from the Senate Committee on Public Health and Quarantine, as well as the general bill just passed by the House. The experts of the War Risk Bureau, Public Health Service, and Army repeated their testimony as given to the Committee of the House.[20] There was little deviation from the material before presented. The Army experts further confused the situation by pointing out that they would gladly receive patients on a *per diem* basis, although the representatives of the civil agencies insisted as strongly

that the patients would not submit to the Army discipline necessary in such an arrangement.

The committee reported the result of its labors to the Senate on February 13, 1919, in the form of a substitute for the House bill more nearly in accord with the House minority report than with the majority report. New construction was almost completely excluded; for it there were substituted the odds and ends of the Army hospital equipment. Dawson Springs was retained. Three million dollars was assigned to the purchase of a huge structure called the Speedway Hospital which was being built for the Army but which the Army had refused to accept. Two new hospitals, one at Norfolk and one in the District of Columbia, were authorized with a total cost of $1,450,000. The Marine Hospital at Stapleton, Staten Island, was to be improved; a Soldiers' Home in South Dakota was to be borrowed for five years; five cantonments, an arsenal, and a nitrate plant were to be turned over from the Army and three-quarters of a million dollars appropriated for their reconstruction as veteran hospitals. The total appropriation was $7,100,000.

On February 21 the Senate accepted and passed the bill with practically no debate. A conference between the two Houses led to a compromise appropriation of nine million dollars based upon the Senate plan plus a million and a half dollars for expenditure under administrative discretion. The House, although it objected to the principle of designating locations, which was included in the Senate plan, accepted the compromise, the Senate accepted the increase of appropriation, and the bill became a law on March 4, 1919 (40 U. S. Stat. L. 1302).[21]

It is thus seen that Congress took upon itself the responsibility of rejecting the experts' plan of new and permanent veterans' sanatoria, substituting therefor the Army hospital program of adaptation and reconstruction designed for war-time necessities. The Senate plan of designating

sites triumphed for a time over the principle desired by the House and by the administrators, of leaving wide discretion to the experts in the location of hospitals.[22] Another important feature of the law was its deviation from the original Congressional plan of concentrating veteran activities in the War Risk Bureau. By the Act of 1919 the Public Health Service was made directly responsible for the hospitalization of veterans under the War Risk Insurance Act. As a result there were now three administrative units each responsible for a single phase of veteran administration.

Making Bricks without Straw.—With its new responsibility the Public Health Service entered upon a period of expansion. It rapidly increased its personnel, taking first into its reserve corps and then assigning to active duty many war-time Army medical officers. Generous Congressional appropriations for salaries and hospital maintenance were made directly to the Service rather than, as heretofore, to the War Risk Bureau. During the calendar year 1919, following the passage of the Act, it took over and operated ten additional hospitals, mainly cantonments and emergency buildings transferred from the Army and Navy war equipment. After nine months' experience with such equipment those in charge were ready to call the Senate Committee's hospitalization program a failure. In December, 1919, the Secretary of the Treasury transmitted to the new Congress a bulky document[23] containing the following revealing paragraph:

> . . . The Public Health Service has taken over these camp base hospitals as directed by Congress, and after earnest efforts to operate them on a satisfactory and economic basis has been compelled to abandon all but two as entirely unsuited to the needs of the situation. Sick and disabled soldiers, sailors, and marines have manifested a strong disinclination to accept treatment at these places, in spite of the efforts on the part of the Public Health Service to make them attractive and to administer them as civil institutions. As a result it is probable that a considerable number

of men are not now accepting hospital treatment and are suffering thereby.[24]

As a remedy new construction was again recommended. The estimates made the previous year had been necessarily tentative. After twelve months' experience, however, the War Risk Bureau and Public Health Service were able to make an accurate forecast of veteran hospital needs. The probable total was defined as 30,660 beds, of which about 25 per cent (7,200) would be for general or surgical cases, 40 per cent (12,400) for tuberculosis cases, and 36 per cent (11,060) for neuro-psychopathic cases. Following the previous year's analysis, it was assumed that existing and contract facilities would be sufficient for the general and surgical cases, leaving three-fourths of the total which required special sanatorium equipment. A four-year building program to provide the 23,400 sanatoria beds at an estimated cost of $85,000,000 was proposed. The principles of location enumerated earlier were included in the report and the draft bill accompanying it recommended lump sum appropriations which would leave specific locations to administrative determination.

The Secretary of the Treasury in transmitting the document refused to take responsibility for the accuracy of the estimates, but urged the passage of some legislation providing new construction.[25] Although the Congressional Buildings and Grounds committees held hearings, they proved to be quite as skeptical of expert advice as they had been the previous year. The second session of the 66th Congress (meeting from December, 1919, to June, 1920) completely rejected the urgent administrative recommendations.[26] The general tendency seemed to be to regard the eighty-five-million-dollar program as foolish extravagance.

Since inadequate hospitalization has been one of the main defects in the veteran program, it is worth while stopping at this point to see whether the legislative or the admin-

istrative viewpoint was justified. During the stormy years to follow it was quite a common practice for members of Congress to respond to veterans' criticism by speeches reciting their lavish generosity in providing for ex-service men, with an imposing array of statistics which showed the total amounts appropriated for all types of veteran relief. Only an occasional speech admitted any Congressional fault in the matter of hospital construction.* Rather, the administrators were blamed for incompetence and criminal neglect in not providing efficient care. Typical of this undiscriminating attitude was Senator David Walsh's first speech in the Senate on the subject, January 27, 1921, in which he condemned all the veterans' bureaus out of hand for the inadequate hospitalization offered the ex-service men.[27] Colonel Cholmeley Jones, retiring head of the War Risk Bureau, replied directly to these charges at the time, laying the blame for inadequate hospitals squarely upon Congress for refusing to enact into law the recommendations of House Document 481.[28] Senator Walsh, himself, a year later (April 14, 1922) was one of the first in Congress to place the blame properly and squarely upon that body. And in

* An example of the cautious recognition of the part Congress had played in delaying construction of new hospital facilities is seen in the following quotation:

"There has been some unjust and ill-advised criticism of Congress in this regard (providing appropriations for new hospitals). Generally speaking, there has been Congressional ardor rather than Congressional apathy.

"It seems likely that we should have made much better progress in this matter if the advice given to Congress in a communication from the then Secretary of the Treasury, Mr. Glass, on December 5, 1919, had been heeded. He evidently anticipated some of the delay which has occurred, and realized also the length of time required to prepare for proper care of the disabled soldiers. He recommended an appropriation of eighty-five million dollars for this purpose. I mention this merely as a part of the history of proposed legislation of this character." (Speech by Representative Lanham of Texas, a member of the House Committee on Public Buildings and Grounds, *Congressional Record*, March 30, 1923, p. 5232.)

the report issued by him as a member of the Senate Investigating Committee he indicated clearly that the experts were right and that Congress was wrong.

It is interesting to see how nearly correct the administrative proposals were. The December, 1918, estimates were for an eventual 42,967 beds, with tuberculosis beds a little more than one-half of the total (23,000) and mental cases a little less (19,000). In the light of the tentative character of the estimates the immediate request made was for only 5,000 new beds. The prompt adoption of this emergency request in 1918 would have brought into early use sanatoria much needed. The estimates of House Document 481 were made on the basis of an additional year's experience. They proved to be surprisingly accurate. The estimated peak load for 1921 on which they were based was 30,660 beds. The peak load which was actually reached in March, 1922, was 31,000 beds. The building proposed was for handling 12,400 tuberculosis cases. The peak for tuberculosis was reached in March, 1922, with a total of 12,274 beds. The maximum number of mental cases was estimated to be 11,060. The highest peak yet attained for these cases was 9,525, in March, 1923. Provision for the surgical group of patients did not enter into the construction program. It is plainly evident that if the 1919 building program proposed by the Public Health Service had been entered into promptly and had been modified, as later experience indicated, the hospitals would have been practically completed and the veterans adequately hospitalized by 1921, when finally the building program was actually begun. Senator Walsh indicated in his report as chairman of the special Senate investigating committee that the costs of construction were probably overestimated in the 1918 administrative proposal, but these, of course, would have corrected themselves in the execution of the program.[29] His report and that of the Senatorial investigating committee reveal plainly

that the Congressional amateurs would have done better to pay more respect to the opinions of the experts. And if blame is to be placed it should be put squarely upon the backs of Congress for ignorance, if not for gross inefficiency and incompetence, as makers of administrative policy.

CHAPTER VIII

MEDICAL CARE OF THE WORLD WAR VETERANS
(*Continued*)

During the years 1919 to 1921 Congress proceeded along the lines of makeshift veterans' hospitalization. Several features of the 1919 Hospitals Act returned from time to time to plague it. In Washington, D. C., it was found necessary to buy a building, instead of finding or building one on government land as provided in the Act.[1] The three-million-dollar Speedway project in Chicago, taken off the hands and conscience of the Army, proved to be a white elephant. Its completion was greatly delayed owing to differences of opinion between the interested parties as to construction costs.[2] Additional appropriations eventually had to be made for its final purchase. Dawson Springs also gave trouble.[3] On two or three occasions during these years money was appropriated in lump sums to the War Risk Bureau with authorization to use part of it for hospital remodeling. A clause of the Sundry Civil Appropriation Act for the year 1920-21 opened for veteran uses the National Homes for Disabled Volunteer Soldiers reputed to have 9,000 vacant beds, and ample money was given for such reconstruction as was needed to fit them for ex-service uses.[4] Again and again in Congressional debate it was urged that the abandoned war camps should be used more extensively for the war veterans. As Senator Walsh concludes in his review of hospitalization:

> It probably will never be known how much money was spent for makeshift expedients in the way of hospital facilities during the

period from March 3, 1919, to March 4, 1921, in which period there was no legislation by Congress providing funds for hospital construction. These funds were derived from appropriations for the maintenance of hospitals, and must have amounted to enormous sums of money. The expenditures were so spread out and diversified that it is practically impossible to trace them through all of the ramifications of rentals, transportation of surplus material, repairs, alterations, and other similar expedients.[5]

New Hospitals at Last.—Although disappointed in the construction program, the Public Health Service during these years proceeded as best it could to administer veteran hospital relief. The hospital units under its charge expanded along the lines of Congressional requirements. Much use was made of contract hospitals, especially for neuropsychopathic patients. By June, 1920, the Service had fifty hospitals of some sort in operation; in June, 1921, sixty-two. Veteran care assumed quantitatively the major portion of its attention and personnel. Although tuberculosis and mental diseases were not fields in which it previously had had special experience or skill, it soon developed for them an expert personnel. Good use was made of the Army technique in such specialties as occupational and physical therapy. Hospital management, dispensary service, and physical examinations were all administered on a huge scale.

With the convening of the short session of the 66th Congress in December, 1920, the request for new hospital construction was renewed for the third time in as many years. This time it was not only a departmental request, but was backed by pressure borne in upon Congress from interested outside agencies through petitions, letters, and memorials complaining of inadequate facilities. The Congressional committees near the end of the previous session had reported favorably a five-hospital construction bill at a ten-million-dollar cost. The reports accompanying these proposals had stated confidently that such a program would meet existing needs and that the 9,000 beds in the Soldiers' Homes would absorb future demands. They proposed that

any future new construction should consist mainly of additions to the units already established at these Homes. By such a plan, it was asserted, "the needs set forth in House Document 481 . . . will be provided for in a suitable manner." [6]

A new bill introduced in the House and reported early in the session provided for twelve and a half million dollars of new construction, with an additional half million for remodeling two abandoned Army posts. Although this was much like the proposal reported a half year before, the committee report indicated that the new hospitals would prove to be no final solution to the problem.[7] Chairman Langley in his expository speech before the House revealed the disillusioning process through which his committee had gone. Its previous hearings had indicated a possible use of 10,000 vacant beds in Soldiers' Homes. But during the summer it had been discovered that only 1,700 of the reputed 10,000 were really available, and "that if the entire space were used not more than 4,000 such men could be accommodated in them at most." He also pointed out that abandoned Army posts, which the committee for a time had hoped might be a solution of their problems, were insecure, temporary at best, and in addition were absolutely unsuitable for tubercular patients. In conclusion he stated ". . . this is merely the initiation of an extensive hospital building program, and undoubtedly all sections of the country will be taken care of ultimately." [8]

The members of the House evidently accepted the conclusions of the report. The familiar objections to locations on account of climate were now voiced by one lone member, and only a single voice was heard in favor of staying the hand of new construction in order more fully to utilize existing government plants—in this case an abandoned Indian school in the Representative's district. The new temper of the members was revealed by the fact that the main part of the discussion was taken up with a recital of

the atrocities meted out to war veterans in contract hospitals. Stories multiplied of shell-shocked veterans sent to hospitals for feeble-minded children where they were obliged to sit in infant chairs, of tuberculosis cases located in marshy industrial districts, etc.[9] The speakers, however, condemned not themselves but the administrative bureaus for the lack of proper facilities. The bill after a short debate passed the House unanimously on February 7, 1921.

In the Senate the Committee on Appropriations increased the amount appropriated to $18,600,000 and eliminated a House provision designating zones for location. In both cases this reversed the position taken by the Senate on the 1919 Hospitals Act. The Secretary of the Treasury was given discretion in locating the new hospitals, being limited only by the provision that a maximum of $6,100,000 should be used for remodeling.[10] The report came late in the session, there was only a short debate, and the bill was adopted unanimously by the Senate. As amended it was accepted by the House and became a law March 4, 1921 (41 U. S. Stat. L. 1364).

Thus two years and more after the first request had been made and only after stinging criticism had been received from all sides, Congress voted an appropriation to begin carrying out construction along the lines originally suggested. At last cantonments, nitrate plants, abandoned Army posts, leased summer hotels, contract hospitals, and Old Soldiers' Homes were given up as the solution of the problem and a program of permanent, new, and specialized sanatoria was begun. Congress had finally come to see the wisdom in the remarks made before the Senate Committee by the Medical Adviser of the War Risk Bureau one month after the close of the war, that not every building with four walls and a roof could be made into a veterans' hospital. The toll of the two years' delay can never be measured. But surely in many cases the debt to the veterans so freely

and generously acknowledged in Congressional debate was in many cases paid too late.

Coördination or Unification?—The problem of providing adequate veteran hospital facilities proved to be one of convincing Congress of the necessity of getting new sanatoria constructed as quickly as possible. In 1921 other aspects of the administration of veteran relief began to assume importance. Primary among them was that of securing efficient action by the three veteran agencies in dealing with one another and with the soldier. In the original law of 1917 there was general recognition of the principle that all tasks involved in veteran relief should be under the direction of, if not concentrated in, the War Risk Insurance Bureau. It has been noted, however, that by later statutes certain veteran functions were given to other existing specialized agencies—*i.e.,* vocational training to the Federal Board, and hospital and medical relief to the Public Health Service. These changes seemed to follow another well-known administrative principle that work should be divided upon the basis of specialized function. It was evidently presumed that not only would duplication of effort be avoided, but also that separate responsibility for the three tasks would be clearly located.

But an examination of veteran activities indicates that the three tasks were closely related to one another and that inefficiency in any one of the three would hamper the work of all. If the three agencies were separately responsible, coördination of the closest and most careful sort was a plain administrative necessity. In the location of the bureaus, however, the usual methods of coördination were lacking. The War Risk Bureau and Public Health Service were in the same Cabinet department, and although at first not organized under one assistant secretary, this was later accomplished. But the Federal Board was not in the same Cabinet department nor in any Cabinet department. Instead, it was a partly *ex-officio* board made up of three

Cabinet officers and three appointed citizens, no one of whom was the Secretary of the Treasury or a representative of that department. Cabinet or departmental coördination, therefore, was impossible. There were possibilities of developing some special device for securing common action. But it is not on record that the necessity for this was appreciated until the very last or that anything of the sort, aside from liaison officers, was put into practice.

The weaknesses inherent in the administrative arrangement soon revealed themselves. To the individual veteran his government appeared in imagination a benignant uncle owing him and gladly giving him the relief he deserved. But in practice he found what seemed to be inexcusable and hopeless duplication, confusion, complication, and delay. His first encounter with this system was in receiving his examination for discharge from the military service. For his insurance premiums and examination for admission to compensation, as well as for monthly payments, he dealt with a civilian bureau. For vocational training he received another examination and certificate of admission, this time at the hands of another separate board. For medical examination, hospital and clinical care, he dealt with still another bureau. Possibly he was placed in a contract hospital managed by a local public authority but inspected by the Public Health Service. Finally he probably fell back on still other agencies, the Red Cross and American Legion, to help him find his way through the meshes of red tape which prevented his getting care, financial aid, and rehabilitation.

Centralization or Decentralization?—Another defect which loomed large in the individual veteran's mind was that in the whole process of admission to relief the government, his benefactor, seemed very, very far away. It appeared to him to be operating beyond miles of territory and after weeks of waiting, moving slowly in the midst of huge and intricate systems of claims, review of claims, files

and cross files. By 1921 the centralization of decisions and records in Washington had become one of the principal criticisms of veteran administration—to be cured, it was thought, by the decentralization of records and of decisions in the hands of local officials dealing directly with the individual veteran.

Cumulative Criticism and Reorganization.—These two types of criticisms, added to the growing complaints of inadequate hospital facilities, had created a formidable public opinion by the time of the Presidential election of 1920. Most of the charges were not separated into the three counts, but rather were wholesale and undifferentiated indictments for incompetence, red tape, and neglect directed against everyone and everything having to do with veteran relief. We have already seen that the earliest reflection of this heightened criticism, which was felt in Congress in 1920-21, accelerated the passage of the first Langley Act (as the Act of March 4, 1921, was generally called), appropriating a large sum for new hospital construction.

A slight step in the direction of reintegration of control was taken by a law passed in 1920 which put the assignment and control of patients in the Soldiers' Homes in charge of the War Risk Bureau instead of the Public Health Service. Since the rest of the hospitalization control remained with the Service, it is doubtful whether this lessened the existing confusion. A more promising step was taken in the direction both of coördination and of decentralization by executive orders early in 1920. At this time the three veteran agencies adopted an identical plan of district organization based upon the fourteen districts of the War Risk Bureau. In each district their respective headquarters were located in physical contact with one another. The possibilities of this simple device were never really tested, since the mounting criticism overtook its operation and led to more drastic unification.

What was needed from the executive side was the con-

sideration of the veteran administration as a major problem and its handling by the Cabinet, by the President, or by some general executive agency in a vigorous, thoroughgoing, and persistent fashion. But it is charitable to say that the arm of the Chief Executive in 1919 and 1920, so far as administrative problems were concerned, was not only figuratively but literally paralyzed.

The American Legion.—In February, 1920, the *New York Evening Post* initiated a widely read series of articles on the subject of veteran relief, recommending greater unification of control. The House Committee on Education, after some investigation, made a report on June 4, 1920, recommending the union of the three veteran agencies under one head.[11] To the American Legion and the other veteran organizations, however, should probably be given the credit for attacking the problem most constructively. A committee of the Legion had made extensive field investigations as to the actual failures of the existing administration and their causes. During the Presidential campaign they were undoubtedly influential in securing an open pledge from both parties to improve existing conditions. At its annual convention in September the Legion heard and adopted the report and recommendations of its special committee. The evils were diagnosed as too great centralization, too little coördination, and inadequate federal governmental hospital facilities.[12] This last criticism, as we have seen, bore fruit in the first Langley Act. For the evils of organization the recommendations were unification of the three veteran agencies at the top under one responsible head, preferably a Cabinet member or assistant secretary, and decentralization in the field.

The committee, aided by other Legion officials, drew up a preliminary bill which the late Congressman Rogers of Massachusetts perfected and introduced in the House early in 1921.[13] This bill provided for the transfer of all veterans' work to the Department of the Interior and the

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setting up there of a Bureau of Veteran Reëstablishment under an assistant secretary. Neither it nor other bills with the same objects were acted upon. Colonel Jones in his 1920 report as head of the War Risk Bureau approved the plan of consolidating the federal veteran agencies for the purpose of centralizing responsibility, authority, appropriations, and disbursements.[14] About the same time the Wason bill providing for a system of decentralization of the work of the three agencies was introduced; but although favored by the War Risk Bureau it failed of passage in the short session.

Sawyer and Dawes.—Meanwhile on March 4 President Harding and a Republican administration assumed office pledged to deal promptly with the veterans' situation and committed to the establishment of a department of public welfare. Anticipating executive initiative, Senator Medill McCormick had introduced on December 7, 1920, an omnibus reorganization bill (S. 4542) creating among other things a department of public welfare and including in it the three agencies dealing with veterans as well as the National Home for Volunteer Soldiers. This bill did not get beyond the committee stage. Soon after his inauguration (on March 10, 1921) President Harding appointed as White House physician Dr. Charles E. Sawyer, a friend and old family physician, who was at the time the head of a sanatorium in Marion, Ohio. It was announced that aside from his personal duties Dr. Sawyer was assigned by the President to the task of investigating matters in relation to public health, education, and social welfare, with a special view to the creation of a department of public welfare. Whatever General Sawyer's personal qualifications, and among them were undoubtedly honesty, good will, and a sincere desire to serve his friend and his country, he had certain disqualifications of personality and temperament for this post. Nor was he qualified by experience or study of administration to seize upon and solve with intelligence the

intricate problem which faced him. His initial viewpoint toward it is revealed in his testimony given before Congressional committees and other bodies during the first few months of his official career. It was the idea—just rejected by Congress—of utilizing existing hospital facilities rather than of constructing new buildings.* Like many Congressmen before him, he was impressed also by the superficial showing of vacant beds in military and other federal hospitals.

One of Dr. Sawyer's early efforts was the fathering of a bill for the establishment of a department of social welfare. In the first session of the 67th Congress held in the spring of 1921 there were two or more such bills (S. 408, later S. 1607, and H. R. 5837). Hearings were held on them on April 21 and May 11-20, 1921. They provided for the transfer of various educational and health bureaus to the new Cabinet department and the establishment therein of four divisions (corresponding to groups of bureaus each under an assistant secretary) one of which should be the division of veteran reëstablishment to include all the activities of the Federal Board and War Risk Insurance Bureau, as well as veteran activities of the Public Health Service. Another, the health division, would include the Public Health Service, the Board of Managers of the National Home for Volunteer Disabled Soldiers, and such hospitals as St. Elizabeth's now under

* See especially his testimony April 21, 1921, published in the Senate Hearings on the bill for the establishment of a department of social welfare (S. 408). After a year and a quarter in office he made the following answer to criticisms of his delay of hospital construction: "So long as there is not absolute need of beds, so long as the Government has at its command places where it can hospitalize all who apply, so long as there are over one-third of all the beds in Government institutions unoccupied, there is certainly no occasion for other construction, or such hurry as to bring about waste and would locate our institutions out of sections in which they really belong and build more than is really necessary." (*Sic.* Quoted in *Congressional Record,* p. 10682, 1922).

the Department of the Interior. General Sawyer's testimony at these hearings revealed only a rudimentary grasp of the problem of organization of departments and units. Since they involved the broader problem of general administrative reorganization, then being taken over by the newly created Joint Committee on Reorganization the bills came to naught.

President Harding, however, took a more immediate and practical step in aid of the veterans' situation by appointing a commission of citizens consisting of eleven members with General Charles G. Dawes at its head, to investigate the problem and to submit recommendations for executive and legislative action. The members of the commission represented the American Legion, Red Cross, and organized labor. In its deliberations it availed itself of the officials of the government in charge of veteran activities, including the so-called White Committee (from the name of its chairman) of consultants, a group of distinguished specialists called in by the Secretary of the Treasury to work out a program of hospital construction under the first Langley Act. In short, the commission availed itself of all those inside and outside the government in closest touch with the veteran problem. Under the very active chairmanship of General Dawes the commission met and concluded its investigations in three days beginning April 5, 1921. As a starting point for its deliberations it accepted the recommendations of the American Legion Committee.[15] Considerable attention was paid to the lack of adequate hospital facilities. It indorsed the new Langley hospital building law and the proposals of the White Committee for a general building program, urging a "continuing hospital building program to provide satisfactory care for the disabled veterans of the World War to be entered upon at once."

But the main recommendations in its report were those favoring the consolidation of the veteran agencies at the top.

Owing largely to the influence of General Dawes and possibly also of the Harding-Sawyer plan for an eventual department of public welfare, it was proposed that the three veteran bureaus be combined in an independent agency outside the Cabinet and directly under the President. A difficult feature of such organization was the problem as to whether only the veterans' work of the Public Health Service should be taken over, or whether it should act as a contract agency in carrying on hospitalization. It was finally recommended that all the examination and supervision work of the Service should be transferred, but that the hospitals should be retained and used as contract hospitals by the new veteran agency.

The Wason decentralization bill creating various districts and district offices had failed at the short session of Congress ending in March, 1921. The Dawes Commission indorsed the principle of this proposal, pointing out that although the Public Health Service and Federal Board were already adequately decentralized it was essential that the insurance activities be similarly regionalized.

The commission made a unanimous report to the President on April 7 containing the recommendations described above. Acting thereon immediately, the Secretary of the Treasury on April 19 transferred to the War Risk Bureau all the veteran activities of the Public Health Service except the hospital and dispensary care. This restored to it the tasks of medical examination and inspection of hospitals, which it had originally performed but which had been removed by successive Congressional Acts. The consolidation of Federal Board activities could not be carried out without additional legislation.

Creation of the Veterans' Bureau.—A bill (H. R. 3, later changed to H. R. 6611) embodying the recommendations of the Dawes Commission was introduced by Representative Sweet[16] on April 11, 1921, the first day of the special session of the 67th Congress. It included the assign-

ment of the Veterans' Bureau to the Treasury Department rather than its maintenance as an independent unit. It incorporated the main provisions of the Wason bill proposing decentralization into fourteen regional offices and additional sub-regional offices.[17] Hearings were held before the House Committee from April 29 to May 4. In the hearings it was evident that the men in charge of the bill were in favor of the location of the consolidated agency in the Treasury Department, where it would be in close contact with the Public Health Service and the Office of the Supervising Architect, rather than to make it an independent extra-Cabinet unit. The bill was so reported to the House with the provision that the director of the new agency should be an assistant secretary of the Treasury. The House debate on June 2 and 3 turned mainly on the subject of the wisdom of the decentralization provision. In a vote upon an amendment to make the Veterans' Bureau an independent unit the House sustained the committee position. The decentralization provision was changed to provide for a number not to exceed 140 sub-offices, in place of 50 as given in the reported bill. In its amended form the measure passed the House unanimously. In the Senate there was little discussion. The Committee on Finance, however, amended the bill to include the idea of the Dawes Commission in favor of an independent unit; as changed it passed that body on July 20. In conference the Senate amendment was successful and the bill was adopted and signed by the President August 9 (42 U. S. Stat. L. 147).

Thus the recommendations of the American Legion committee, modified in some respects, were made into law and there was created a new agency consisting of the former War Risk Insurance Bureau, the Federal Board for Vocational Education (except for its original civilian activities), and the examining and directive veteran activities of the Public Health Service. The veteran hospitals of the Service remained in the Treasury and were to be used on a contract

basis. The latter arrangement, originally made on the assumption that the new unit would be in the Treasury Department, was modified a year later, when on April 29, 1922, the President, acting under the provisions of the law, ordered the transfer of all the veteran hospitals then under the Public Health Service to the Veterans' Bureau. The non-commissioned personnel in these hospitals was transferred also, and the Public Health Service commissioned officers were detailed to the new Bureau. Gradually many of these officers were replaced by its direct employees. Thus the Veterans' Bureau became its own chief hospitalization agency, and the consolidation of veterans' care was complete.

In many persons' minds, no doubt, such a reorganization appeared to be a solution of the problem. But it is clear that in providing for a consolidation of some activities it was creating a duplication of others. The subsequent history of the Veterans' Bureau does not reveal that these changes in organization had any unique value as compared with much less drastic arrangements which might have been worked out.

More Hospitals.—The Sweet bill creating the Bureau did not deal with the findings of the Dawes Commission in favor of a continuation of the hospital construction program. The first Langley Act had made a start in this direction. Under it the Treasury committee of hospital consultants, the White Committee, was laying the groundwork for a two-year program of permanent construction and location, and for temporary hospitalization until the permanent sanatoria should become available.

When the 67th Congress met for its first regular session in December, 1921, a second Langley hospital bill was introduced.[18] It authorized an appropriation of seventeen million dollars for new hospital construction to give an estimated additional capacity of 9,000 beds. The debate on the bill in both Houses reveals that by this time Con-

gress was thoroughly educated to the program of extensive new hospital building. The main interest of Congressmen now apparently was to secure as great speed as possible in the new construction. A year had elapsed since the White Committee had been given charge of locating hospitals under the first Langley Act. Although its members had testified before the Dawes Commission that two years would be required for permanent construction, considerable criticism was voiced because of what seemed inexcusable delay both on its part and on the part of the Supervising Architect, who, under the Act, had charge of letting contracts and building the new hospitals.

This criticism was voiced directly by Colonel Charles Forbes, the Director of the Veterans' Bureau, who appeared at the hearings on the new bill. He condemned the slowness of the existing government construction agencies, especially the purchase-and-hire system, which he described as the policy of the Supervising Architect's Office, and asked for transfer of power and responsibility for the new hospital construction to his own bureau. With such a change he promised to produce hospitals within eight months under the contract system.[19] The officers of the American Legion, eager for the location of responsibility for all future delays, sponsored the change in policy.

In the meantime another hospital authority had been created in the federal government. This was the Federal Hospitalization Board, one of the several *ex-officio* coördinating boards under the new Bureau of the Budget, with General Sawyer at its head as the chief coördinator and with the other members designated representatives of the several national governmental hospital agencies.[20] Desiring to assume a general directive power over hospital equipment and locations, General Sawyer recommended the discharge of the White Committee and accepted Colonel Forbes's proposal with the proviso that the approval of the Hospitalization Board should be necessary for new structures. He sup-

ported, therefore, the proposal to take control and supervision of contracts from the Supervising Architect's Office.

Dr. White and the Supervising Architect appeared at the hearings also, denied the charges of delay, attacked Colonel Forbes's statement that they were committed to the purchase-and-hire system, and vigorously opposed the change of policy. The majority of the committee, rather reluctantly, perhaps, agreed to the reversal of their usual policy and reported out the bill with the provision that construction should be concentrated in the Veterans' Bureau with the approval of the President (not the Hospitalization Board).

In the ensuing Congressional debate the proposals and promises of Colonel Forbes were eagerly accepted as a means of avoiding future difficulties. Many of the speakers followed his example in finding the White Committee a new scapegoat for hospital delay. To quote the statement of Representative Fish of New York: "The whole record of the White Committee is a record of broken promises—of promises made and then broken and then extended to be broken again." [21] We shall see that the very able members of this Committee were to receive abundant justification when later their work was compared with the construction accomplished by the Veterans' Bureau. The bill passed the Senate with very little debate and became a law on April 19, 1922 (42 U. S. Stat. L. 496). By its provisions the continuous building program and consolidation at the top were carried a step further.

Decentralization in Practice.—In the meantime the third reorganization proposal of the American Legion—decentralization in the field—seemed not to have met with immediate success. When the Sweet bill was debated in Congress decentralization was opposed by some who feared that it would cause more red tape and confusion than it would eradicate. During the process of transition and transfer of records their prophecies seemed more justified than those of the sponsors of the change. Although the decentraliza-

tion process began shortly after the creation of the new Veterans' Bureau, eight months afterward (April, 1922), it was announced that the transfer of records was only one-fourth completed. When the new session of Congress met in December, 1921, criticisms of the process and its results began to be heard. In this matter Congressmen touched the pulse of the Bureau's efficiency because of their widespread practice of handling individual veterans' appeals. A large part of the time of the Congressmen's clerical force was taken in handling these matters. And the Veterans' Bureau spent a large part of *its* time dealing directly with such preferential cases submitted by Congressmen. It was soon evident that it was more difficult for Congressmen under the decentralized system to get answers to their transmitted complaints than when all the files and records were concentrated in Washington.

On January 30, 1922, the subject became one of general debate in the House, with more than a dozen Representatives making speeches full of concrete instances of delay and red tape.[22] In the Senate the same criticisms were echoed at various times during the session.[23] On March 17 Representative Larsen of Georgia asked for a Congressional investigation of the Veterans' Bureau, with special reference to the cost and value of decentralization.[24]

The Veterans' Administration under Suspicion.—In other aspects of veteran administration it became evident as time went on that the recent reorganization had not automatically solved the problem of federal care of the wounded and sick veterans. The rapid erection of hospitals promised by the Director did not materialize. The blame for delay, however, was at first ascribed to the continuing division of authority caused by the activities of General Sawyer and the Federal Hospitalization Board.

On July 26, 1922, both the chairman of the Rehabilitation Committee of the American Legion and the head of the Disabled American Veterans of the World War publicly

charged General Sawyer with holding up the hospital construction program. The latter veterans' official declared, "I will leave no stone unturned until General Sawyer has been removed from the position he holds," adding that his influence was "meddlesome, troublesome, and void of any beneficial results whatsoever." [25] Dr. Sawyer replied to these charges with a report of progress in construction, but showed his vulnerability in the matter by stressing again the number of vacant Army and Navy beds which should be used before new construction would be needed.[26] Later testimony before the Senate Investigating Committee revealed that from the first Colonel Forbes and Dr. Sawyer were working at cross purposes. It is difficult to assess the blame between them.

During the year 1922 the growing complaints were pointed more and more at the Veterans' Bureau and its Director. Charges were heard that the Bureau was adding to its rolls partisan and spoils appointees.[27] Dr. Haven Emerson, one of the ablest health experts drawn into the public service during these years, resigned in disgust early in the Forbes administration, stating that the Bureau was the football of politics and that plumbers and policemen were being substituted for scientific medical men. Colonel Forbes's reply to this statement, as being that of a disgruntled and unsatisfactory employee, was clear enough indication of inability to handle high-grade personnel.[28] Major Arthur Dean, as distinguished and able in the field of vocational education as Dr. Emerson was in public health, also resigned in protest against a wildcat rehabilitation scheme at Camp Sherman, Ohio. Plainly something was wrong with a management that was losing such valuable and disinterested service.

The Veterans' Administration Condemned.—Finally, ugly rumors were heard regarding collusion and fraud in the letting of hospital contracts. Several resolutions were introduced calling for Congressional investigation. On March 2, 1923, the Senate adopted a resolution sponsored by

Senator David Walsh of Massachusetts providing for a committee of three (Senator Reed of Pennsylvania, Senator Oddie of Nevada, Republicans, and Senator Walsh of Massachusetts, Democrat, were appointed) to investigate Veterans' Bureau leases and contracts (S. Res. 466. 67 Cong. 4 Sess.).[29] On this same date Colonel Forbes resigned from his post as Director. The new Director, General Frank T. Hines, coöperated to the fullest in the committee's investigation. Under these favorable auspices the committee's activities developed into a complete analysis of the first two years of the Veterans' Bureau administration. During the year 1923 the counsel of the committee, General J. F. O'Ryan, carried on an extensive investigation of veteran activities, part of which was prosecuted through the aid of prominent volunteers in local investigations. Hearings were held in the latter part of 1923 and three reports made to the Senate in 1924.

Forbes Exposed.—The outstanding feature of the committee reports, as well as that which received the most publicity, was the personal condemnation of the Veterans' Bureau Director and his associates as expressed in the following language of General O'Ryan:

> Viewing this investigation and its results in perspective, it becomes clear that while many of the shortcomings of the government's effort on behalf of the disabled can be traced to the novelty and the magnitude of the undertaking, to the haste which marked its early development, and to the inexperience or inadaptability of personnel, nevertheless the outstanding cause of the unsatisfactory conditions existing in February, 1923, which led to this investigation is to be found in the leadership of the Bureau during the incumbency of Charles R. Forbes, which covered the period from April 28, 1921, to February 28, 1923. . . . Colonel Forbes was neither able nor honorable in the conduct of his office. The evidence is not only convincing in this regard, but it is such that no other conclusion can be reached.[30]

The committee in its unanimous report added:

> The committee agrees with General O'Ryan's characterization of

the wretched incompetence, waste, and dishonesty of the administration of the Bureau under Director Forbes.[81]

The mass of testimony regarding Colonel Forbes and his notorious associates is a sordid story of corruption, graft, and unbelievable lack of a sense of public duty. But it is aside from our main purpose to recount it here. It was fully set forth in newspapers both at the time of the hearings and later during the Forbes trial at Chicago which resulted in his eventual conviction along with that of one of his contractor-associates. The committee investigation and report, however, dealt also with major problems of administration with which we are directly concerned.

Hospital Construction Failures.—The third committee report, written by Senator Walsh, contains a review of the hospital problem and building program from 1918 to 1924. Analysis was made of the early building policy of the administrative bureaus, its disastrous revision by Congressional action or inaction during the first two years after the war, and the construction authorized by the Langley Acts, and first undertaken under the White Committee, later by the Veterans' Bureau. To quote the reports in reference to the Langley Acts:

> When the appropriation bill came before the subcommittee of the House Committee on Appropriations . . . Colonel Forbes stated . . . in effect, that it would take four months to let the contracts for the projects under the second Langley bill and that he would complete the projects in nine months from the time the contracts were let, a total of thirteen months.
>
> He also claimed that whereas the Treasury Department was spending $4,000 per bed for their construction under Public Act No. 326 [first Langley Act], he could do an equally good piece of construction for between $2,000 and $3,000 per bed.
>
> As a matter of fact, the Treasury Department has completed all of its nineteen projects except the one at Chelsea, N. Y., and supplied 5,846 beds within two years, 2,983 of which were ready for occupancy at the end of eighteen months, and this at a cost of $2,972 per bed. The Veterans' Bureau at the end of eighteen months has provided 200 beds, and at the end of two years will

probably have provided not more than 1,200 beds, and these at a cost of $3,957 per bed.

In the light of past events it is clearly seen that the appropriation to the Director of the United States Veterans' Bureau for construction was an error. This method did not make for either speed or economy, but did afford an opportunity for waste and fraud.[32]

The second Langley bill superseded the Supervising Architect of the Treasury in the construction of government buildings, and this change was almost without precedent in governmental construction except in so far as the Army and Navy are concerned.[33]

Such delays as did occur under the White Committee, moreover, were partially caused by the creation of the Veterans' Bureau in the midst of the committee's activity, necessitating the submission of projects to it for approval. It was again handicapped by the transfer of hospitals to the new Bureau in April, 1922.[34] The Senate Investigating Committee summed up this period of construction by saying:

> The whole record of hospital construction throughout the country shows unreasonable delay by the Veterans' Bureau. Local interests, individual interests, political influence, and corruption all contributed to the development of the unfortunate conditions criticized.[35]

The evidence shows also that collusion in contracts, and the purchase and sale of supplies led to similar extravagance and inefficiency in the maintenance of the hospitals.[36]

Other Defects.—In the field of personnel perhaps enough has been said to indicate that the spoils system was an important evil of the Forbes administration of veteran relief. The primary defect in personnel was no doubt the appointment of this drummer-boy-Signal Corps deserter-colonial public works executive-contractor-war hero to such a transcendently important post of responsibility. For the payment of a debt of personal friendship and for days of good fellowship on a Congressional junket, President Harding gave to a political-industrial adventurer control over an agency

spending annually half a billion dollars, with 30,000 employees, engaged in the complex task of rendering humane, efficient service to 200,000 more or less helpless war victims. The failures of the period, consequently, were due not so much to lack of good administrative machinery as of political wisdom and executive statesmanship. The findings of the committee were what we might expect: the medical service overmanned and lacking in morale, appointees chosen in "large degree by reason of political influence, and promoted and retained in their positions for the same reasons"; civil service rules evaded and cases found of men receiving at the same time salaries as bureau employees and compensation as bureau beneficiaries.[37] Added to these were shocking evidences of neglect of duty in the field.

The committee condemned vocational training of the veterans as inefficient and recommended its rapid termination. Although questions were raised as to the wisdom of the decentralization plan, this matter was referred to the judgment of the new director. Congressional interference through preferred individual claims was an evil which, although brought out at the hearings, was probably not sufficiently stressed in the report.[38] Finally, the committee did not seek the remedy for past conditions in any new proposal of organization, but in the ability and activity of the new director and in increased vigilance on the part of Congressional committees.

Contemporary Developments.—During the last four years the partially renovated and improved veterans' administration has begun to assume something like stability and efficiency. The hospital construction program totaling about sixty-five million dollars in new building is, after many delays, nearing completion. The last of the sanatoria authorized before 1924 was ready by the summer of 1925. To round out its program, the Bureau in December, 1923, proposed a $6,500,000 building bill and, in addition, $350,000 for a home for a National Training School for the Blind. Although the bill (S. 3181) authorizing this appro-

priation passed the first session of the 68th Congress without opposition on June 5, 1924, the appropriation measure itself failed to pass in the legislative jam at the close of the session.[39] The proposal enlarged to a ten-million-dollar grant was renewed in the short session of the 68th Congress beginning December, 1924, and was finally adopted March 3, 1925.

By this time the increase of veterans' cases and the continuous need for expansion of facilities under the war risk insurance plan had been passed. In his 1924 report the Director indicated that from then on the Bureau's attention could be mainly directed toward the improvement of the actual medical treatment given in hospitals rather than the organization of new facilities.[40] A new law, however, passed on June 7, 1924, with the indorsement of the Director, extended the insurance and benefit provisions of the statutes to veterans whose diseases had not been incurred directly as a result of the World War and, with certain limitations, to the veterans of other wars. This has materially increased the number of beneficiaries. But facilities have kept pace with the additional cases.[41]

Since the advent of Director Hines the reorganization of units has been carried through, so that actual consolidation has been attained for veteran purposes. Probably reorganization will not be pursued further—although it was suggested not long ago by President Coolidge that the Bureau be included in a Cabinet department to insure more supervision and responsibility. It was, of course, removed earlier from Cabinet departments for the same reason. If any plan for general departmental reorganization succeeds it will probably receive some such disposition.

One of the most vexing problems now surviving is that of medical personnel. In the Bureau are doctors and nurses under the regular civil service system, as well as commissioned officers of the Public Health Service reserve, on detail. Director Hines, in his proposals to the 68th Congress

for new legislation, advocated the adoption of either one or the other system, preferring at that time the civil service status for all. But it was met by objection and was not included in the omnibus veterans' codifying measure of that session. A bill (H. R. 12308) creating a commissioned Veterans' Bureau Medical Corps, however, on lines identical with that of the Public Health Service and other uniformed services, was introduced in the short session of the 68th Congress and again in the first session of the 69th Congress (1925-1926 H. R. 4474); but thus far it has not been adopted.[42]

Decentralization as a principle has proved on mature experience to be sound. But the specific plan incorporated in the Sweet bill in 1921, of fourteen regional offices and no more than 140 sub-regional offices, was found not to be sufficiently decentralized to obtain the desired result—*viz.*, personal contact between government and the veteran. The Bureau, therefore, under Director Hines, first consolidated several of the sub-regional offices, reducing them from 128 to 77, and then under discretion granted by the omnibus law of June 7, 1924, consolidated the regional with the sub-regional offices. This gives fifty-four local offices combining the advantages of personal contact obtained in the smaller sub-regional areas with the powers of local decision originally granted to the regional offices. According to the Director, increasing decentralization will be a principle of the administration of the Bureau.[43]

Summary.—The six stormy years of veteran relief here reviewed, while not concerned primarily with public health administration, have presented problems of significance in relation to it. An important aspect of ex-service legislation and administration throughout the period has been that of furnishing national medical and hospital service on a huge scale. Similar services to other groups in the population have engaged the attention of the chief federal health agencies such as the Public Health Service, the Army, and the

Navy for years. Questions of proper relationship between units, of unification or coördination, of common use of hospital equipment, of interchangeability of personnel, have been constantly in the foreground. The answer given to them necessarily goes a long way toward determining the particular form to be taken by the federal health organizations. The Veterans' Bureau with independent medical services, with separate personnel, hospitals, and management, is one answer to the particular questions raised. It is doubtful, however, whether the more economical expedients suggested by the original policy of using existing agencies were ever given a fair trial. In any event an appreciation of the essentially organic connections between governmental services should make us skeptical of any simple solution to the problem of the relationship of units.

More important, perhaps, than the relationship between administrative bureaus seems to be that between the administrators and Congress in the making and revision of operating machinery and the provision of equipment with which to perform services. It is a mistake in our governmental system to hold administrators alone responsible for administration or to study administration without paying attention to the Congressional committee room as a place where administrative acts are determined. The plans for the administrative structure and for the furnishing of equipment were here seen to be at first the work of experts in the interested bureaus, Cabinet officials, and Congressional committee chairmen. Later the Chief Executive, conferees appointed by him, his personal representatives, and interested private organizations were brought into the scene. Although in this particular story the Bureau experts are the heroes and the Congressmen the villains, it is not always so. In such situations our political system requires the exercise by some one of what might properly be called executive functions—*i.e.*, leadership and coördination between policy and administration. Whether this be at the hands of a Con-

gressional committee chairman, a bureau chief, or the President himself is not so important as that it exist somewhere.

A final observation which arises from our examination of the evolution of veterans' relief is that regarding the wasteful use of experience in such matters. Committees, executives, and conferences have seemed to reveal short memories and to approach present difficulties with no idea that comparison, perspective, or careful scrutiny of alternatives was necessary. Where defects have appeared, the immediate remedy has seemed to be a transfer of power or shift of machinery, regardless of the fact that previous defects had led to precisely opposite changes. National public health administration, as well as all public administration, would benefit if some agency could calmly and carefully marshal the results of past errors into an historic record.

CHAPTER IX

NATIONAL MEDICAL CARE OF THE INDIANS

National medical aid to the disabled and sick ex-service men came about largely on account of their peculiar relationship to the national government. Medical services for the men of the Army and Navy and for merchant seamen, as we have seen, were developed principally because of their necessarily itinerant mode of life. So also the Indians on their reservations have been accorded national medical supervision mainly on account of their position as the wards of the federal government.

The explanation of the national government's guardianship over the Indians is to be found in the long history of relations between the white man and the red man in America. At the time of the founding of the national government the Indian status was somewhat similar to that of the modern protectorate—*i.e.,* Indian tribes were considered to be domestic, dependent nations whose external trade and foreign relations were under the supervision of the United States government. These external relations were governed by treaties made by the tribal authorities with federal agents. Internally the tribes were considered competent to govern themselves.

The maintenance of this superficially simple relationship, however, was difficult from the first. On one side of the treaty boundaries was a race accustomed for centuries not to recognize bounds, but to rove far and wide in quest of game. On the other side was a group of settlers eager to extend the white man's country into Indian territory at its richest spots.

It is therefore perhaps significant that the control of Indian relations under the newly formed government of 1789 was assigned to the War Department. The white man's land hunger, extension of settlements, and continuous border troubles led after many years to an important change of Indian policy. At points of friction the tribal lands were diminished or vacated entirely and the Indians with more or less difficulty and hardship induced to betake themselves to definite blocks of territory called reservations in the new and unoccupied lands west of the Mississippi. Often the national government, as an easement for these resettlements, included in the treaty with the Indians some indemnity in money or goods to be paid to the tribes for a stated period of years. As the grants expired, it was frequently found that the new reservation's supply of game and wild fruits, traditional Indian means of livelihood, were inadequate for maintaining the primitive settlers. In this dilemma the money grants were frequently renewed. Thus by a gradual policy many of the tribes were pauperized and became directly dependent upon governmental doles for economic support.

Paternalism and Tutelage.—When the national government came to contemplate the possibility of continued support of the tribes in comparative idleness on their reservations it was led almost inevitably to seek the alternative of invading their tribal autonomy and teaching them to support themselves economically. The plan of internal supervision and training, once entered into, however, presented difficulties at many points. As early as 1802 federal agents had been authorized to reside among the Indians with the main view of teaching them better methods of agriculture. But it was found that the Indian system of tribal or communal ownership prevented the development of efficient agricultural production. The logical next step, therefore, was the task of transforming community land ownership to individual land allotments. Communal property among the Indians had

not made necessary the strict recording of family inheritance, as is essential where private property in land is supreme. Most Indian tribes practiced monogamy, it is true, but often in a succession of monogamous agreements freely entered into and departed from. Consequently, children could not easily trace their parentage for the purpose of land inheritance. The equitable and regular allotment of tribal property thus led logically onward to a considerable invasion of tribal customs and the building up of much administrative-legal machinery.

The consequences of training for economic self-support did not end here. The early individual land allotments inaugurated for this purpose under the Act of 1839 proved to be disastrous. Too often the new and inexperienced individual Indian property owner was hoodwinked by white "land sharks" into selling his tribal birthright for a mess of pottage or jug of "fire-water." The Indian, thus exploited, passed out of national supervision on the reservation and into the mass of the white American community, a pauperized citizen untrained and often unable to hold his own in the individualistic, competitive civilization of the frontier. The remedy for this situation seemed to lie in a still further invasion of the reservation life in order to train the Indian for adequate responsibility before release from national supervision. Later allotment laws were passed, notably the Dawes Act of 1887 (24 U. S. Stat. L. 388), which provided for a period of tutelage before the fee simple land patent and individual citizenship were granted to the tribal Indian. A recent Act has granted citizenship universally to Indians, but has retained all the features of gradual tutelage precedent to removal from national governmental wardship (43 U. S. Stat. L. 253). The settled national policy is now that of gradually extinguishing reservations and wardship by a program of training and tutelage on and off the reservations, which will eventually fit the Indians for absorption into the general American political and social system.

The process of training on the reservations is of main interest to us. It was not to be expected that the Indians, merely by force of contagion from their white neighbors, would give up their inherited customs for those of an alien world. It early became evident that the brave preferred the beat of the tom-tom to the whir of machinery, and the squaw showed a tenacious desire to cling to the blanket in preference to the corset. Tutelage has involved a persistent and widespread system of education and persuasion.

For this effort there have been developed Indian schools for the teaching of Indian children to think and to act like white men, agricultural agents to train traditional hunters to become practical farmers, police to keep order and to enforce the prohibition of fire-water and vice, land agents to determine and record land titles and to convert tribal fields into one-hundred-and-sixty-acre tracts. A government in the Indian country more collectivistic than among the whites has been set up. And naturally, in the preparation for American citizenship, there has developed some effort to replace the herbs and incantations of the medicine men with the science and skill of the trained physician, sanitary engineer, nurse, and bacteriologist. Medical care and health protection have become an integral part of the paternalistic government under the charge of the Indian Office. Although it is this aspect of Indian administration which is of concern to us, it is essential first to view it as a part of the "government within a government" under the Bureau of Indian Affairs.[1]

The Indian Medical Organization.—The total Indian population of the United States is approximately 350,000. Of this number about 250,000 are under governmental control on reservations.[2] Although some of the non-reservation Indians are, for certain purposes, under the supervision of the Indian Bureau, it is primarily the quarter-million reservation Indians who are dealt with from the medical and health point of view. The reservations number about two

hundred, many of which are widely separated.[3] The unit for the local government of each reservation is the agency. But there is not an agency for each reservation. In 1926 there were ninety-nine agencies, so that now, although on some very large reservations there is more than one agency, in many more cases an agency serves more than a single reservation.

The Agency Medical Service.—At the head of the agency is a superintendent appointed from Washington under civil service rules. This official, who is really the chief executive of the Indian towns and rural units under his jurisdiction, has been called the "pocket edition of the Commissioner of Indian Affairs." Subject to supervision from above and checked by local Indian sentiment expressed through councils and petitions, he is the local governing authority. Under his direction and immediate control are the various agency employees in charge of special activities, such as the farmers, disciplinarians (who are police officers and physical education directors combined), clerks, matrons, school principals and teachers, and the agency doctor. The principle of delegating authority locally to the superintendent is important in defining the position of the physician in Indian medical work. We shall see that it is criticized by some who desire to give independent powers to the local medical official.

A majority of the agency doctors are regular, full-time employees chosen under civil service regulations. In 1926 the total number of school, agency, and hospital physicians was 186. About one-third of these (61 in 1926) are what are called contract doctors.[4] The contract physician is used in places so small and sparsely populated that the employment of a regular full-time physician would be too expensive. According to the rules of the United States Civil Service Commission $720 per year is the maximum limit of remuneration on a contract basis. Usually the physicians are paid according to a yearly contract. Occasionally, however,

they receive two dollars per visit to the reservation.[5] The contract system, here as elsewhere, is quite unsatisfactory in securing good medical service. Dr. Newberne, the Medical Supervisor of the Indian Bureau, testified in 1919 that the Service would rather have the regular full-time physicians. The only reason for not having them in all places is, to use his words: "We have to take the best we can in most cases." In a few instances the superintendent of the agency is himself the agency physician.

Practically all agencies have day schools, boarding schools, or both, as a part of their equipment (the day school providing instruction in the first three grades, the boarding school for the first to sixth or fourth to sixth grades). In connection with the school, especially if it is a boarding school, there is usually a hospital. Sometimes in place of a school hospital there is an agency hospital, normally, however, adjacent to the school. A school hospital regularly accepts adult cases when there are beds available; an agency hospital likewise accepts cases from the school. In addition there are twenty boarding schools not on reservations, each with a hospital. Practically all of these Indian hospitals are comparatively small. Several of the larger ones are built and maintained out of tribal funds. But almost all of them cost not more than $25,000 to construct, were built from Congressional appropriations, and range from six to sixty beds each, with an average of twenty beds. In 1926 there were 145 day schools, 76 boarding schools on and off the reservations, and 82 hospitals.[6]

The agency physician who is likely also to be the school physician is usually in charge of the hospital. In the larger reservations, however, the positions of agency physician, school physician, and hospital physician are partly or wholly separated. In connection with each hospital is a resident nurse.[7] Although not all of these are graduate nurses (in 1926 there were 135 nurses in the Indian service), it is the policy of the Indian Bureau to replace existing nurses when

they retire by graduate nurses. Usually there is only one nurse to a hospital and, as in the case of the physician, the offices of school nurse, agency nurse, and hospital nurse are often combined. Frequently where the hospital is connected with the school the Indian girls studying nursing are used for hospital nursing.

The remaining element in the medical and health administration of the agency is the field matron. This woman employee is a sort of general social worker and visiting teacher to the Indian mothers. In this capacity one of her duties consists in instructing the squaws on dietary, child care, and home sanitation matters. She is not a trained nurse—although in the last few years the Red Cross has detailed a number of its nurses to serve in the place of field matrons. Often she is the wife of the agency superintendent or agency employee. There were forty women employees listed as field matrons in 1926; not every agency has such an official. The tendency is to replace them by trained nurses.

The typical agency medical and health unit, then, consists of a small hospital serving the school and the agency population, the agency physician, a graduate nurse, and at times a field matron or social worker without special nursing training. Each of these officials and institutions is directly subordinate to the agency superintendent who is in charge of all local Indian administration.

Field Supervision and Sanatoria.—In addition to the local medical equipment and personnel there have been added in recent years a traveling or field medical force for special disease problems, and sanatoria corresponding in function to the general hospitals of the Army and Navy. To help in combating the prevalent eye disease, trachoma, there are now six eye, ear, nose, and throat specialists who, accompanied by nurses, visit the reservations. The more serious cases are consigned to one of the six general or regional trachoma sanatoria erected in recent years.[8] Similarly, there are six field dentists who travel from reservation to reser-

vation doing routine examination as well as supervisory work. There are eleven general sanatoria for tuberculosis and one general hospital for the insane.

Until very recently there were, in addition to these traveling specialists, four traveling medical supervisors, one of whom was assigned especially to hospital inspection, and another, the chief medical supervisor, was the actual medical head of the Indian Bureau. During the last year (1926), however, the machinery of supervision has been reorganized and expanded. The Indian country has been divided into four medical districts, each one of which is in charge of a medical director who maintains a central office, inspecting and coördinating the Indian medical and health service in the area under his charge. In place of the chief medical supervisor there is now a chief medical director with two staff assistants, one an epidemiologist and the other a specialist in trachoma and tuberculosis. The medical director and district medical directors are officers of the Public Health Service detailed to the Indian Bureau. The 1926 report states that the reorganization program provides also for the increase of trachoma specialists, traveling dentists, and public health nurses.[9]

The Washington Office.—The Indian Office or Bureau of Indian Affairs, as it is variously called, is organized like almost all regular bureaus that fall within a Cabinet department. Its politically responsible head is the Secretary of the Interior, in whose department the Bureau is located. Practically the two Congressional Committees on Indian Affairs share in this political responsibility. The immediate head, entitled the Commissioner of Indian Affairs, is a Presidential appointee, not bound by the forms or traditions of the merit system, but changed almost invariably with shifts in political party control in the national government, and drawn from political life outside the Bureau.[10] The present commissioner is an ex-Congressman with long experience on the House Committee on Indian Affairs. Dur-

ing the ninety-one years since the creation of the office there have been thirty-one commissioners serving an average term of three years, with the longest individual term a little less than eight years. Directly under the commissioner is the assistant commissioner, who in the case of the present incumbent is a fairly permanent official promoted from within the service. In charge of personnel, mail, files, library, and supplies is the usual chief clerk.

The Bureau is divided into eight functional units called divisions, three of which are smaller than the others and of recent creation. Most of the divisions are again divided into sections, each under a section chief. The names of divisions indicate roughly the main tasks of the Bureau in dealing with the Indians. They are education, health, law, finance, land, forestry, irrigation, purchase, and inspection. The Education Division includes most of the social or human, as distinguished from industrial, work among the Indians. It is divided into sections dealing with schools, law and order, industries, and (until recently) health.

For many years the Health Section was almost rudimentary in character, having the chief medical supervisor as its head (who, as already pointed out, spent part of his time in field inspection) and as its only other member a physician whose work was confined largely to central office routine. On April 1, 1924, the Health Section was expanded into a Health Division coördinate with the Education Division and was put under a chief now directly subordinate to the Commissioner of Indian Affairs.[11] About the same time a new unit in charge of the work of the field matrons and nurses was set up in the Washington office and included as a part of the Health Division. This was the outgrowth of the excellent investigational, supervisory, and home visiting work done by three or four trained public health nurses detailed from the Red Cross to the Indian Service three years before. One of these nurses was made the supervisor of the new

Section with headquarters at Washington, but with the expectation that she would spend most of her time in the field.

Until 1926 there was in the Indian Office an inspection division with a corps of general field inspectors. During this last year, however, inspection and supervision of the field work has been decentralized by the creation of nine districts, each under a superintendent who, in turn, is under the direction of a General Superintendent of Indian Affairs (newly created) at Washington. According to the 1926 report of the Commissioner (p. 4), "it is expected that many matters of detail and management not involving questions of policy will be adjusted by the district superintendent, thereby lessening the volume of correspondence with the [Washington] office and expediting and simplifying the field work." It is to be noted that the medical work is given a district organization and general direction quite separate from this.

Board of Indian Commissioners.—The foregoing comprises the regular administrative organization of the medical work of the Indian Bureau. There is, however, an additional official but independent inspection and advisory agency —the Board of Indian Commissioners. This is an unsalaried board of ten members appointed by the President, usually from among prominent citizens interested in the Indians. Created by President Grant in 1869, it has as its sole duty the visitation and inspection of the various Indian reservations and the formulation of recommendations in an annual report to the Secretary of the Interior. Regularly the various members of the Board, most of whom come from the Eastern states, divide the country into districts and individually visit a number of contiguous reservations. The individual recommendations and criticisms of the members form a large part of its annual report. In addition to regular visitation the Board occasionally carries on investigations of such Indian problems as the effectiveness of schools or of health facilities. It has a permanent chairman and

paid secretary, a central office in Washington, and a yearly appropriation of about $10,000.

An independent investigating and advisory board is not often found in connection with governmental administrative agencies. As this one has a reputation of continuous and faithful service its suggestions and reports cannot help being of value to the administration of Indian affairs. One of its members, an ex-college president and missionary leader, served thirty-eight years, including thirteen years as secretary. The present chairman has been a board member for twenty years; its secretary has served for eighteen years; one member is a specialist in Indian archæology; another is the head of the Catholic Indian missions; and still another was the chief promoter of the Lake Mohonk Conference of the Friends of the Indian.*

Indian Disease Problems.—Before considering how effective the Indian Medical Service has proved to be, it is well to know the peculiar problems that it has to face. Traditionally the Indians have been assumed to be a physically decadent—a dying race. There is little justification for this generalization, since in recent years there seems to be no longer an annual decrease of population. In many respects Indian reservations have the same disease problems to face as other American rural communities. The general environmental

* There are several important, unofficial agencies interested in the Indian problem. The oldest of these is the Indian Rights Association with headquarters at Philadelphia. Others are the Society of American Indians, organized in 1911, and the Heye Foundation of the Museum of the American Indian. Since 1883 there has been held each year at Lake Mohonk, New York, a Conference on the Indian and other Dependent Peoples. Addresses given at these conferences are published. Recently there has been an unusual interest in Indian problems. Other agencies have been formed or have shown increased interest. Among these should be mentioned the American Indian Defense Association, the Eastern Association of Indian Affairs, and standing committees on Indian affairs of the American Anthropological Association, and the American Association for the Advancement of Science. (See, for instance, accounts of conferences of such organizations in the *New York Times*, June 10, 1923.)

conditions on the reservations are not unfavorable to health. Indeed, the lands assigned for them have been more favorable to living than for earning a living. The majority of reservations are located in areas where the malaria mosquito does not breed, and, as a result this disease, except in parts of Oklahoma, is not at all prevalent. On account of the isolation and the low density of population of most reservations, and also because of the Indian custom of locating houses on eminences a considerable distance from the water supply, the typical rural disease of typhoid is rare.

Despite these advantages there are conditions which increase disease prevalence. The United States Public Health Service was asked by the Bureau of Indian Affairs in 1912 to make an investigation into the prevalence of contagious and infectious diseases among the Indians. The Service made a comprehensive field investigation, inspecting 39,232 Indians in selected areas in twenty-five different states.[12] The conclusions from this survey were that the principal Indian diseases are tuberculosis and trachoma.[13]

Trachoma, an infectious eye disease, serious in nature and often a cause of blindness, was found to prevail among Indians of all ages. Although there were no practicable means of getting complete statistical evidence covering the entire population, the survey indicated that approximately 22 per cent of the Indians were suffering from it. It was found to be more prevalent in the Indian boarding schools than among the day schools and also more prevalent in the day schools than in the general population, suggesting that the schools were the means of contact and dissemination. The hygiene of the Indian home with its overcrowding and promiscuous use of personal utensils, as well as the common practice of making prolonged house-to-house visits, indicated to the Service officers that this disease had an easy means of spreading throughout the Indian community.

Tuberculosis was the second disease found to be more prevalent than in the white population. Although again

the Public Health Service officials were not able to make statistical estimates, it was the testimony of the investigating officers that the tuberculosis situation was very bad. The lack of school hygiene, the overcrowding, the bad housing, and the practice of domestic visiting formed the means of the spread of this disease as well as of trachoma. Pneumonia and influenza, other respiratory communicable diseases, as might be expected, have attacked the Indians with more serious results than among most white communities. The annual reports of the Indian Service for recent years indicate that trachoma, tuberculosis, and pneumonia continue to be acute disease problems.[14] Other diseases found to be unusually prevalent were measles and certain comparatively harmless skin diseases such as impetigo and eczema.

Smallpox, contrary to popular impression, was not found to be unusually prevalent. It had been kept from spreading, however, by a fairly well administered program of vaccination at the hands of agency physicians. The venereal diseases were found to be rare, except in a few places in close contact with the neighboring white population. Scarlet fever was found not to be unusual in its occurrence. No investigation of infant mortality was made—although later work by medical officers of the Indian Bureau has shown the value of hospital provision and medical care in reducing unnecessary mortality among Indian mothers and infants.

This analysis of the Indian diseases suggests the nature of the medical and health work necessary to deal with them adequately. Typhoid, malaria, and the hookworm are fought by sanitary engineers exercising power over property and dealing with the material environment. The Indian diseases, however, are those spread by personal contact, demanding for their reduction and elimination adequate and ample provision for early isolation and treatment of all cases, often through hospitalization. Especially do they call for education and improvement in personal, home, and school hygiene, and the use of school and home nursing. Altogether they

require the combination of the curative and the preventive aspects of medicine in an organized campaign under the leadership of physicians and nurses interested and trained in public health work as well as in medical relief.

The Difficulties of Indian Health Work.—As we have seen in a previous chapter (Chapter III), there are no legal or constitutional barriers in the way of a vigorous federal health administration among the Indians on the reservations. Possessed of full police power, limited by practically no court protections of private rights, the way is open for unhampered enforcement of a public health and sanitation program involving, if necessary, drastic measures.

Difficulties in the way of effectual health and medical work lie in social rather than in legal barriers. And where, as here, the task is so much one of education, training in personal and home hygiene, and voluntary hospitalization, the social barriers are more serious than the lack of police power. Differences of race, language, customs, and a thoroughly justified irritation at generations of alien meddling, are powerful hindrances to the rapid extension of Indian health work. Furthermore, there are the solidly intrenched medicine man and medicine woman, whose prestige, power, and livelihood depend upon denouncing openly or discrediting quietly their alien white rivals in the field of healing.

A second kind of administrative difficulty arises from the distribution of the Indian population. The two hundred-odd Indian reservations, having a total population of about 250,000, are distributed in units rarely averaging more than a thousand to two thousand residents, with many holding less than a thousand, in the states with the "great open spaces."*

* The states with substantial Indian populations under federal care are as follows: Oklahoma, 119,481; Arizona, 43,519; New Mexico, 23,287; South Dakota, 23,159; Minnesota, 12,968; California, 12,725; Montana, 12,587; North Carolina, 11,824; Nevada, 10,940; Wisconsin, 10,404; Washington, 8,151; North Dakota, 9,240; Michigan, 7,593; Oregon, 6,608; New York, 6,053; and Idaho, 4,017. It will be noted that with the exception of New York, North Carolina, Mississippi, Michigan,

There are, it is true, a few reservations which together form a considerable unit. Chief among these are the reservations of the Five Civilized Tribes in Oklahoma, which have an Indian population of about 23,000, the reservations in northeastern Arizona, southern Utah, and western New Mexico with a large combined Indian population, and in South Dakota, where there is a fairly compact group of agencies. But the others are scattered and isolated. With such a widely distributed population and with necessarily poor transportation, medical care and public health administration cost more per person than in more thickly settled communities. The scientific division of labor by which the well-settled political unit obtains the services of experts in special activities tends here, under the pressure of governmental economy, to give way to the all-round governmental health and medical officials, necessarily inexpert in many aspects of their work.

The political status of the Indian population tends to augment rather than compensate for this difficulty. Most of the reservation Indians were, until the recent Act of Congress, without the vote; and their white friends, though devoted, are few in number. Being in out-of-the-way places, they do not impinge on popular attention. The frequent visits of tribal chiefs to Washington, where they add color to the Congressional lobby and furnish a piquant and profitable paragraph to the English novelist *en tour*, are more picturesque than successful in increasing appropriations. As a result the federal money grants for health and other services for these wards of the nation do not fare well in the rough competition between powerful political groups for a share in national expenditures.

The Effectiveness of the Present Medical Service.—In appraising the work done by the Indian Medical Service and the possibilities of its improvement, it is necessary to

and Wisconsin, these are all states west of the Mississippi River with a large area and a sparse population.

keep these difficulties of administration constantly in mind. They are difficulties not only common to small and poor rural communities elsewhere in the United States, but in part at least, are peculiar to the administrative system adopted for this quarter-million of our population. The nature of the work now being done on the reservations can best be indicated, perhaps, by the personal experience of one of the Public Health Service officers who investigated the Indian health situation in 1912:

What is the matter? Let us visit an average doctor on an average reservation. We enter his office, which is reasonably well provided with drugs but not much else. Five minutes later Billy Blackhawk comes after the doctor and we consent to go with him. After a drive of fourteen miles over bad roads, through rain and sleet, we arrive, the doctor carrying his old-fashioned pill bags or medicine case containing a hatful of promiscuous drugs. We enter the house; in one room about twelve feet square live from five to ten people; they sleep on dirty blankets or a pile of dirty rags strewed around the floor, which is covered with grease and filth . . . All the doors and windows are closed to keep out the cold. . . . From the dying embers in the stove and a well-smoked lantern there are emitted rays of light approximating in number half a candlepower. Dark as it is and cold, every time you move you can hear the flies buzzing as they are driven from their sleeping places. Indeed, some of them have not yet gone to bed and can be dimly seen crawling around over the nostrils and lips of the little sufferer whom the doctor has come to see. Let us look at the child. He is five years old, has had whooping cough for the past three weeks, and now has pneumonia. The poor little fellow is so dirty the doctor hates to touch him. On the same pile of rags is stretched his sister, twelve years old, in the last stages of consumption. If by some miracle the child should survive its present ailments, it would certainly die later of tuberculosis. Now, what can a doctor, though armed with all the drugs in the pharmacopœia, do under such circumstances? The parents of the child do not know enough to give the remedies as they should be given; they do not know how to feed the child, and do not have proper food for it if they did. Even if they could carry out the doctor's directions as to medicine (which is perhaps the least important part of the treatment) the doctor cannot come every day, or even once a week, for that matter, and no doctor can see such a patient once and outline his course of treatment for the

rest of the time that the child is going to be ill, and yet that is exactly what he tries to do. Being a physician, I took the liberty of asking the doctor how much good he thought he had accomplished by his visit. "None at all," he replied, "as you can readily see; the child will probably die; the father will conclude that the white doctor is no better than his own 'medicine man' and may never send for me again; and, in fact, the Indian in his peculiar surroundings can really die as well without my aid as with it." I smiled grimly at this sally and the doctor sighed deeply. Just as we were leaving, an Indian halted us to say that old lady Redeagle, who lived in the tepee across the creek, was also very sick. "And did she send for me?" asked the doctor. "No, but I thought maybe you might go to see her." We went. Now, a tepee is another name for the old-fashioned wigwam, still in existence, a kind of improvised tent with a dirt floor. A little fire of sticks burned low in the center, the smoke going out through the open space in the rounded top. We had to crawl on our hands and knees not to be stifled with smoke. There was no light except from the small fire. Bundled in a heap, with head and ears covered, lay an old creature evidently quite ill, but not too ill to show plainly that she resented our coming. An old man just aroused from his slumbers sat up and glared at us with sullen indifference. In spite of her protests the doctor essayed to make an examination of his patient. In about a minute and a half he came away and said that it was probably either a case of dysentery or of typhoid fever and that was as near as he could guess. . . . As it was now very dark, the doctor lighted his lantern and we found our way to the creek. It rained on us all the way home.

[The Public Health Service reports add that] this character of routine work has been going on, on many reservations, for years. The Indian is not benefited as his needs require; consequently he does not avail himself as fully as he might of the provisions for treatment of diseases. The physicians conducting the work on many of the reservations see no encouragement, their life is isolated, their pay small, their hope of promotion limited. Under such conditions it would be surprising if any, except the genius, undertook to overcome the obstacles.[15]

This picture is probably not typical of the larger and better Indian agencies at the present time. Since the advent of Commissioner Sells in 1913 there has been an evident increase of interest and activity in Indian health work. And under the administration of his successor, Commissioner

Burke, which began in 1921, this tendency seems to be continuing despite the general economy program of the present national administration. At the time of the Public Health Service survey the appropriation for Indian health work (outside of certain tribal funds devoted to hospitals, etc.) was only $60,000. For the fiscal year ending 1914 it was raised to $200,000, and in 1917 it had been enlarged to $350,000, where it remained until it was again increased to $500,000 in 1924 and to $700,000 in 1926.[16]

With more adequate funds there has been an increase of Indian hospitals and especially of tuberculosis and trachoma sanatoria.[17] The traveling, supervisory medical force has been built up. During the war there was inaugurated a maternity and infancy program. Some efforts have been made to improve the sanitary arrangements in the schools. And by 1916 the number of recorded births among the Indians exceeded the recorded number of deaths. Although Indian vital statistics are by no means infallible, it is quite probable that this record indicates some improvement in the Indian health situation. Clearly, interest in health matters has increased, as can be seen by merely noting the larger amount of space and attention devoted to health in successive annual reports of the commissioner.

Yet very recent appraisals of Indian medical work by health experts indicate that the facilities are still grossly inadequate on the preventive side. Dr. Haven Emerson, Professor of Public Health at Columbia University, declared not long ago that infant mortality among Indians is three times greater than among the white population, and added:

> The neglect of the United States Government has resulted in an appallingly high death rate among the Indians from tuberculosis and trachoma. The great majority of the doctors assigned to the reservations are utterly incompetent. The medical men who have failed in other departments are turned over to the reservations, which have become the dumping ground for incompetents.[18]

So also, in the conclusion of an intimate medical survey

of the Zuñi Indians, Dr. H. C. Fleming says: "The writer feels justified in stating it to be his belief that the prevalence of pestilence and insanitation among the Zuñi Indians in their native environment is due principally to medical negligence and educational neglect." [19] *

Program for Medical Service Reorganization.—From the friends of the Indian have come attempts to improve the situation. The investigation of the Public Health Service contained constructive suggestions for betterment. Although they were separated into three parts, these proposals together constitute a general program that would substitute for uncoördinated doctoring on reservations a unified, supervised medical and health service manned by public health officers and directed from above by an expert staff. The first proposal was to create a medical corps organization similar to that of the Public Health Service, Army, and Navy, with definite grades for salary and promotion. Very closely associated with this was the second suggestion that lines of responsibility and control in the field be provided within the medical corps so as to give the agency health officer independent control over medical matters rather than, as now, to place him under the direction of the agency superintendent. The third element in the program was that of developing public health work and preventive medicine rather than as at present relying almost entirely upon curative medicine. This reorganization program has been accepted by the Board of Indian Commissioners and other interested agencies with the variation, expressed in the Board's annual recommendations, that rather than organize a separate corps of public

* Direct charges of neglect and incompetence on the part of the Indian Office in its medical and other services were made in the House of Representatives on March 4 and April 23, 1926, by Hon. James A. Frear of Wisconsin. He quoted officers of the Indian Defense Association as saying that the report of the Red Cross Indian survey of 1923-24 was suppressed by the Indian Office on account of the bad conditions it revealed. (See *Congressional Record*, 69 Cong. 1 Sess., pp. 5040-5041, 8075-8077.)

health officials under the Indian Bureau the Public Health Service take over and absorb into its own organization the Indian medical work. Although closely related to the Public Health Service plan, this may be considered a separate, alternative plan. Each of the proposals will be dealt with in turn.

Personnel Reorganization.—One of the chief criticisms brought against the present Indian Medical Service is that the positions in it are not such as to attract or to retain a high type of public health worker. The medical employees of the Indian Bureau are included under the regular examination system conducted by the United States Civil Service Commission, as are all of the six thousand other employees of the Bureau except the Commissioner and about twenty-five exempted officials. The merits and defects of the Service thus are those to be found in applying the regular national civil service merit system to such positions. The Public Health Service proposal is, in effect, to substitute for the regular merit system, in the case of the medical employees, the commissioned corps organization found in the health services of the Army, Navy, and Public Health Service itself.

One defect in the present personnel situation evidently has been that of inadequate salary. According to Assistant Commissioner Merritt in his testimony at the 1919 House hearings (p. 446) on Indian affairs, the agency physicians were getting $1,000 to $1,400 in addition to living quarters, fuel, light, and an auto.[19] The traveling specialists received from $1,500 to $1,800 and traveling expenses; the assistant medical supervisors received $2,200, and the chief medical supervisor, $3,000. The nurses averaged $720 to $850 plus quarters, etc.; the field matrons $500 to $600. Not only were these salaries so absolutely small as to lead the Commissioner of Indian Affairs, the Board of Indian Commissioners, and others to ascribe to this fact continued low morale, inefficiency, and rapid turnover, but they were also

relatively small in comparison with the other national medical services.[20] The entering salary (including equivalent allowances) for the commissioned services was about $500 greater than that of the Indian Service. In the competition for young medical graduates, therefore, the latter was likely to get those who were not able to enter the other services. This handicap has been largely removed in the last two years by the salary schedules worked out by the Reclassification Board under the Classification Act of 1923 (42 U. S. Stat. L. 1488).* By these schedules the pay of the medical personnel of the Indian Bureau has come to correspond to that of the federal commissioned medical services. The recent reports of the Board of Indian Commissioners indicate that there have been appreciably beneficial results from the changes.

Low salary alone, however, has probably not been the chief disadvantage of the Indian medical service in competing with the other medical units of national governmental agencies. The man who as a college or professional-school graduate enters any well-organized occupation such as medicine thinks of his first position not in terms of gross salary, but rather in terms of salary plus opportunity for further training and educative experience. He also gives thought to its opportunities for promotion to positions with better salaries, power, and prestige. How these factors operate in the Indian Service can, perhaps, best be illustrated by an extract from a dialogue during the 1919 House hearings between Dr. Newberne, medical head of the Indian Bureau, and a Congressman:

> Chairman. Is it not a rule that you get men who are recent [medical] graduates who take the examination?
>
> Dr. Newberne. We get good men, but they do not stay with us.
>
> Mr. Hayden. Would it be your idea, then, that it was not so essential to raise the entrance salary as it was to provide a more adequate salary thereafter in the way of promotion?

* See Chapter XVIII.

DR. NEWBERNE. If there is some automatic promotion it would be more attractive.[21]

It is the lack of attractive opportunity for promotion as well as the poor educational value of the field positions that causes the Indian medical service to suffer in comparison with other positions. As expressed in the 1920 report of the Board of Indian Commissioners (p. 5), the causes of low morale, in addition to poor pay, are—

> . . . long work days; isolation and, in many cases, unattractive living conditions; indefinite hopes of a future worth while within the service, and a long-established system of administration which operates against automatic, periodic advances of salaries.

For this condition of "inadequate compensation, absence of reasonable expectation of promotion, lack of *esprit de corps,* and coördinated organization" [22] the Public Health Service report proposed the adoption of the commissioned corps personnel system.[23] It would mean transforming the Indian medical staff into a single personnel organization with supervised standards and tests for entrance based largely on medical school work. The tests would be designed specifically to secure the entrance by examination of recent medical or nursing graduates. The corps system would provide also for regular promotion within the corps for the filling of the higher positions, with seniority tempered by internally organized tests and recommendations as a basis for advancement. Perhaps the principal advantage of such a corps organization is that it would be a partial remedy for the problem of isolation, and a guarantee of training after entrance to the service. There would have to be assignments to isolated posts with inherently small opportunity for growth. But, as in the other commissioned corps, a regular system of transfer of stations might be arranged which would provide for the younger officers some experience in larger sanatoria and hospitals, and for the occasional interchange between

supervisory or office positions and field work for the more experienced men.

Training in service is vitally connected with another of the recommendations of the Public Health Service—*viz.*, that of developing public health work on the reservations. Almost universally the medical and nursing graduate receives training primarily in curative medicine. But in the Indian Service, as well as in the Army and Navy, preventive medicine, to accomplish results, should be combined with curative medicine. The Indian medical organization is, in other words, a public health agency as well as the substitute for such medical service as is usually provided by physician, nurse, and hospital in civil communities. It is necessary, therefore, in the present stage of medical education to train the entering physicians after they are in the corps for the public health aspects of their tasks. A system of transfers of assignments would form an important element in such training. At one or two of the hospitals there might be developed annual regional corps conferences, or institutes, where experts would lecture and demonstrate on Indian medical and public health problems and where the men and women in the Service would exchange methods and gain practical information and inspiration. Thus by every means possible—by organized periodic transfer, by lectures, by conferences, by "trade" magazines—there could be developed an *esprit de corps* and enthusiasm for the Indian medical service as well as much greater ability in handling Indian health problems.

This corps organization with its emphasis on apprenticeship and organized training on the job might, of course, be extended with profit to the Service nurses and, perhaps, the field matrons. Dr. J. A. Murphy, a former medical supervisor of the Indian Service, in an article on Indian health problems, stressed the point that Indian health work requires the coöperation of all the employees of the agency.[24] This

rule applies especially to forms of administration where the population is sparse and where, therefore, specialization and functional division of tasks thin out into the necessary work of the medical and health Jack-of-all-trades in the locality. Where this prevails, as it does in the Indian Service, there is a special need to squeeze in as much public health educational training as possible in the case of the non-medical as well as of the medical employees on the reservations. The field matrons especially should be offered every opportunity while at work to become educated in sanitary matters.

The objection might be raised against this proposal for corps organization that the Indian medical service is not large enough at the top to provide opportunity for an attractive career for any large number, and that the agency positions are such that there could be no large possibility for training through conferences or transfer of position. It might also be argued that transfer of position would be more of a loss than a gain on account of the advantage arising from the permanent acquaintance of the doctor with his agency Indians—as well as the desire for stable residence which animates many who enter the Indian Service. If these objections are sound (the evidence available does not warrant passing a conclusive judgment upon them) they suggest the alternative of incorporating the Indian medical service into the existing Public Health Service organization rather than leaving it in its present unsatisfactory state. This matter will be considered later.*

Independent Status.—The second recommendation of the Public Health Service was that the medical officers be

* One of the recommendations of a recent American Indian survey published under the editorship of G. E. E. Lindquist, was that the entire Medical Division of the Bureau be placed under the Public Health Service. See Lindquist, *Red Man in the United States*, p. 391. So also the Society of American Indians has recently recommended this change along with the transfer of other specialized functions of the Indian Bureaus to appropriate government bureaus. See *Current History Magazine*, July, 1923, p. 365.

given an independent status on the reservations. To quote the recommendations of the 1912 survey:

> Medical officers should be the sanitary officers of their jurisdiction in fact as well as name. Their written order should be enforced by agency superintendents, and in case of non-enforcement agency superintendents should be required to report the same to the central authority, stating the reason.
>
> Medical officers of reservations should be under the supervision and control of a distinctly medical bureau. They should be held strictly accountable to such bureau for the administration of medical and sanitary matters on reservations, and the character of their work should be controlled by frequent inspection. . . . In medical and sanitary matters the authority of the medical officers should be, in large measure, independent of agency superintendents, and there should be lodged in a central bureau plenary powers in respect to all medical and sanitary matters among the Indians. . . .[25]

The Board of Indian Commissioners in its annual reports beginning with 1918 has incorporated this recommendation in favor of independent status.[26] The advantages of such an arrangement in securing functional, expert control over Indian public health matters in place of amateur territorial control by the agency superintendent are obvious. As in most problems of administrative organization, however, there are enough disadvantages in the transfer of power to cause the officials in charge of medical work in the Indian Bureau to view the change with disfavor. This is brought out in the reply given by Mr. Meritt, Assistant Commissioner of Indian Affairs (who has been closely in touch with the field administration for a number of years) to a question in the 1919 hearings:

> Chairman. Wherein does the work of the health department under the Bureau of Indian Affairs differ from the work done by the Government Health Department [Public Health Service]?
>
> Mr. Meritt. I think there is quite a large difference. . . . We have an organization that is familiar with the character of the Indians, their peculiarities and diseases, and these physicians are under the direction of the superintendent and are a part of the administrative force of the reservation.[27]

. . . the Indian Service medical problems are closely blended with the educational, social, and industrial problems that concern a race that is in the critical transformation period of evolution from one social plane to another. The work of the Indian Service physicians is affected by all these problems. The medical men are a part of the machinery for grinding out the destinal effects, a part of the administrative personnel occupying a relation of too much importance to be taken by an employee who would be interested in one feature of the work only. For this reason they ought to remain under the jurisdiction of the Indian Office and its local field representatives, the superintendents, not for the purpose of dictating to them how they shall practice their profession, nor when and how they shall treat their patients, but for the purpose of securing and insuring their coöperation in carrying out the technique for the upbuilding of a race. . . .

. . . To administer successfully the medical work of the Indian Service, those in charge should have control of the schools, for health is a part of the course of study; of the lands, water supplies, stocks, and other producing property of the Indians, for the health and industrial problems are too intimately blended to be separated without destroying both. In fact, the solution of the medical problem is awaiting the solution of the industrial problem.[28]

Much of this argument of Mr. Meritt's is directed against giving the medical work a status entirely independent of the Indian Bureau rather than against the proposal of the Public Health Service—*i.e.*, independence on the reservation, but definite inclusion under the central control of the Bureau. Despite the superficial antagonism of the idea of functional and of territorial control of medical work it is quite possible that a status of independence might be attained within the limits of necessary coöperation indicated in Mr. Meritt's analysis.

Prevention and Research.—The third recommendation of the Public Health Service indicates the need in the Indian medical work for the building up of a reservation public health personnel with preventive interests in place of agency doctors with the interests and outlook of rural general practitioners. Shortly after the report of the Public Health Service was made, the Indian medical service began to move in

this direction. Sanatoria for the treatment of trachoma and tuberculosis, and traveling specialists to deal with trachoma —both significant agencies for the detection, isolation, and prevention as well as cure of these serious communicable diseases—have been organized. There have been health drives, baby shows, encouragement of the use of maternity hospitals, and an emphasis upon preventive medicine in health circulars sent to agency physicians.

Further essential steps in building up a public health program were suggested by the 1912 Service report. First is the provision for more adequate current collection of mortality and morbidity statistics. The report makes the following recommendation:

> A transcript of the records of cases of sickness should be transmitted regularly to the Surgeon-General of the United States Public Health Service and reports of outbreaks of certain specified diseases, such as plague, smallpox, and scarlet fever, should be made by telegraph to this official, whose duty it is, under law, to keep the state and local health authorities and the country at large informed of the prevalence of sickness and the occurrence of epidemics.[29]

Another suggestion contained in the report is that the Indian Service inaugurate demonstration health work. An area of high disease prevalence should be selected for demonstration and a sanitary corps installed for a period to carry on a vigorous health campaign so that Congress, the Indian Bureau, and the Indians themselves could learn to judge of the practical benefits of really efficient health control. The report cited the success of similar demonstrations among the natives of the Philippines.[30]

In line with this suggestion the 1924 report of the Commissioner of Indian Affairs (pp. 1-3) announced the selection of the Navajo reservation, the most populous of the Indian communities, as a first battleground for an aggressive and intensive campaign against trachoma. A preliminary survey of the field was made by Dr. Hubert Work, Secre-

tary of the Interior, with medical officials of the Bureau. Local Indian physicians, state and local health authorities of the district, Red Cross organizations, an advisory committee of the American Medical Association, and the state medical societies have offered their support. Dr. John McMullen, a trachoma specialist of the Public Health Service, who coöperated in mapping out the work, is serving during the campaign in an advisory capacity. The report states that in the carrying out of the project the health organization will—

> rely upon persuasion and demonstration to attain its purposes. The Navajos are a primitive people, and if success can be obtained by these methods with them it will show that the policy is applicable among all Indians. There is no law under which Indians can be compelled to submit to treatment for trachoma, nor is it deemed advisable to resort to drastic measures in this particular.*

The reorganization of 1926 is evidently designed to give more emphasis to the public health aspects of the Indian medical service. To quote the 1926 report of the Commission of Indian Affairs (p. 2):

> Under this scheme of reorganization it is expected that more accurate compilation of morbidity and mortality statistics will be made, the medical activities better coördinated and standardized, and the general medical service to the Indians improved through more detailed and comprehensive studies, and by the application of such studies to the needs of the service. With this end in view the United States Public Health Service has . . . indicated its willingness to act in an advisory and coöperative capacity through the services of its hospitals, laboratories, and public health resources, including the active services of its six field medical directors and other personnel.

Whether this means that, in effect, the Public Health Service will through the liaison system now established become the staff agency for Indian medical work, it is too early

* There has been inaugurated also (March 24, 1925) a Red Cross educational-health demonstration on the Tongue River and Zuñi reservations. This is carried on in coöperation with the Indian Bureau.

to say. If it does not, there exists the plain necessity for such a development within the Indian Bureau itself. The organization of any state or municipal board of health, or of the Army, Navy, and Public Health Service, indicates the type of central activity needed: research upon special disease problems of the group, usually arising in the field; centralization and distribution of information on local administrative methods; preparation of educational material; collection, standardization, and effective use of vital statistics; and mobilization of emergency personnel in vital spots in times of epidemics. Such staff administration, except in a very rudimentary way, has not been developed in the Bureau of Indian Affairs.

Proposed Transfer to the Public Health Service.—It is mainly the proposal for an adequate central public health organization that has raised the question as to whether it would not be better to turn over the medical work of the Bureau to the Public Health Service which is already equipped with an elaborate overhead organization, than to duplicate its staff facilities. Such a solution is the one to which the Board of Indian Commissioners has occasionally adhered in its annual recommendations.[31] It is a problem which is encountered again and again in the discussion of administrative organization. On the side of what may be called the special-group, or territorial, principle we have the arguments already stated by Mr. Meritt which stress the necessity for coöperation in dealing with the Indians as a special group and through a unified program. On the other side, in favor of functional or professional classification of work and personnel, is the obvious advantage of having coördination and consolidation of the same types of activity with a common reservoir of knowledge and experience. Any argument in favor of the uniform adoption of one principle apparently is blinding one's self to the truth of the contending principle. Both need to be taken account of in any organization.

It would not be a simple solution of the problem, there-

fore, to adopt the recommendation of the Board of Indian Commissioners—*viz.*, to absorb the Indian medical work into the Public Health Service. Immediately there would appear important problems of coördination of the medical with the educational and other work among the Indians. Perhaps this might be the easier of the two solutions. It is significant, however, that the Public Health Service in its 1912 report did not recommend such a change; nor was Surgeon-General Blue of the Public Health Service, in response to a direct inquiry in the 1919 hearings, willing to recommend the transfer.[32] A possible middle ground might prove to be the wisest course—that of working out close coöperation between a more unified Indian medical service and the existing staff of the Public Health Service. In this way the Indian Service would avail itself of the staff organization necessary for a public health program without duplicating the work of the larger health agency. Perhaps the recent arrangement for detail of Public Health Service officers to the Indian Bureau and the offer of the use of the Service facilities will actually bring about this result.

Even before 1926, however, there were indications that coöperation was already under way, and, in some cases, had proved successful. In time of epidemics the Indian Bureau called in the mobile force of Public Health Service officials as an emergency corps for work with the Indians. During the influenza epidemic of 1918-19 such coöperation was worked out with success.[33] In the winter of 1920-21 an epidemic of typhus fever appeared on the San Juan Indian reservation in New Mexico; after some delay the Indian Service turned over to the Public Health Service the campaign for its elimination, with satisfactory results.[34] For several years the Indian Office has made occasional use of the Public Health Service laboratories and popular health pamphlets.[35]

In other phases of its work the Indian Bureau confronts almost the same problems of duplication with other federal

administrative bureaus. In connection with some of them coöperative relationships have been maintained. Thus, in the case of irrigation projects on Indian lands, although the Bureau has its own engineering staff, it has frequently called in the Federal Reclamation Service (in the Department of the Interior) to carry through the larger projects under a contractual arrangement. Mr. Arthur P. Davis, former Director of the Reclamation Service, has stated that these projects have been carried out with but little lack of harmony. A joint board made up from the two bureaus has maintained the necessary coöperative relationships.[36] In 1908 a fairly complete coöperative arrangement between the Forest Service in the Department of Agriculture and the Indian Bureau was made by which the former took over the forestry business on the Indian lands. After a short time, however, friction led to the termination of the agreement.[37] As is shown by the 1919 hearings, the lack of coöperation resulted in duplication and waste. Evidently such arrangements are not easily made successful. We might conclude from these two instances that the arrangement is possibly more easily maintained when both bureaus are in the same Cabinet department.

The Public Health Service, on its side, has carried on coöperative work, through detail of personnel and prosecution of joint research projects, with the Bureau of Mines, Bureau of Chemistry, Children's Bureau, and Bureau of Education.[38] Likewise, the Federal Board of Hospitalization, with the Indian Office and Public Health Service represented in its membership, has attempted, with some success, the coordination of national hospital facilities.[39] This problem involves, however, the whole subject of national administrative organization and as such will be considered in a later chapter.

Summary.—The description of the medical work among the Indians given here indicates that it consists largely of a rather scanty rural doctoring service working against the

handicap of inadequate appropriations, sparsely populated areas, and an ignorant group of people accustomed to the superstitious practices of their own medicine men. The suggestions for its improvement hinge largely upon the idea that the Indians should be furnished a health, as well as more adequate medical, service; that for such a service there is needed a specially trained and organized corps of health and medical officials with a position on the reservations of power and control, and with an adequate overhead staff organization to supply leadership, direction of forces, and expert sanitary service. Whether or not such a reorganization of the Indian medical work takes place depends to a large extent upon its being connected by devices of coördination with, or by actual absorption into, the more progressive health agencies of the federal government. It depends also upon the amount of financial support granted by Congress and the Chief Executive in charge of the National Budget.

CHAPTER X

NATIONAL MEDICAL CARE OF TERRITORIALS AND OTHER WARDS

The federal government, we have seen, has assumed the rôle of physician to the nation's soldiers and sailors, merchant seamen, and reservation Indians. There remain to be surveyed the nature and extent of national medical and health activity among two other groups in the population; the residents of the national territorial possessions, and the civilian employees of the federal government. The American territories (using the term in a broad rather than a technical sense) fall roughly into four classes. First, there are the organized and unorganized territories with some self-government including a locally elected legislature—Hawaii, Porto Rico, the Philippines, and Alaska. Secondly, there are territories or possessions maintained principally for reasons of naval strategy, governed directly by federal officers without the intervention of local legislative bodies—Guam, Samoa, the Virgin Islands, and the Panama Canal Zone.* Thirdly, there are lands brought under occasional American control through Governments of Occupation:—Cuba, Haiti, and Santo Domingo. When not so supervised these places have the vague international status of protectorates.† Finally, there is the territory assigned by the states for the

* Some of the possessions named do have tribal assemblies informally recognized for some purposes by the federal executive officers. In others there are locally selected municipal councils and officials. None, however, possesses a regularly recognized central legislative body.

† Nicaragua and, perhaps, one or two other Central American republics would be included in a complete list of the protectorates of the United States.

seat of the national government—the District of Columbia —as well as smaller blocks of land partially withdrawn from state jurisdiction to be used for national parks and reservations.

The Territories.—In all of the territories, the national government under our constitutional system is possessed of general police or regulatory power limited only by the protection of persons and property against governmental action contained in the Fifth and other Amendments.* In the case of the Governments of Occupation the legal basis for federal activity and regulation might more properly be assigned to the war than to the police power. But in substance, so far as health and medical activity are concerned, the extent of authority is the same.

It would be possible for the national government to organize and to administer directly the medical and health work among the seventeen-odd millions of its territorial population in their widely scattered locations. In the case of some this has been done for a temporary period. But altogether there has been considerable variety in the amount and method of federal control over the dependent populations. Any analysis of the national health jurisdiction must, therefore, concern itself with different types and degrees of control and autonomy. Some of the territories, located in tropical regions with peculiar and important disease problems and inhabited by people on a pre-scientific level of medical knowledge, have offered opportunities for significant experiments leading to brilliant successes in vigorous sanitary activity. In others the federal health agencies have left the problems of sanitation and medicine to be solved by local initiative if at all. Each territory, consequently, must be

* In the so-called Insular decisions some of the private rights protections of the federal Constitution were held not to apply in the dependencies as in the states. This is a matter of constitutional power which is of no practical concern here.

surveyed in order to obtain an understanding of the general field of national health activity.

Hawaii.—Among the organized territories Hawaii represents the policy of local autonomy in matters of health. During its entire history as a member of the American domain it has experienced little more national interference in health administration than one of the states. The United States Public Health Service carries on its system of maritime quarantine and immigration inspection on the islands as it does in states along the international borders. The territorial government bears no separate expense for, nor has any special relation to, these activities. A general control over Hawaiian public administration is maintained by the provision that the President and Senate shall appoint the territorial governor. The governor appoints the territorial board of health, exercises a veto on acts of the territorial legislature, and makes an annual report to the Secretary of the Interior at Washington. The relationship, therefore, remains somewhat general, representing no constant or actual supervision by any national health agency.

The territorial board of health, consisting of seven members, is in immediate charge of the health activities of Hawaii. Through its President, who is the active executive officer, it administers directly certain functions and supervises the work of the local health officials in the four counties into which the territory is divided. The insular health organization is thus much like that of an American state.

A special health interest attaches to Hawaii on account of the prevalence there of two important communicable diseases—leprosy and plague. For several years the Public Health Service maintained a plague laboratory at Honolulu and established successful coöperative relations with the local officials in an anti-rat campaign. In 1908 Congress, at the request of the Service, voted an appropriation to establish a leprosy investigation station in Hawaii. The territorial board consented to the establishment of this station in close

relation to the famous Molokai leper settlement, of which it is in direct charge. Molokai was later abandoned, however, in favor of the Kalihi Hospital at Honolulu, where the Service and the territorial authorities have administered experimental treatment to newly detained lepers. Part of the salary of the Service officer is paid by the territorial board and he serves on detail to its own leprosy organization. In the research aspects of the work the scientific staff of the University of Hawaii is coöperating.[1]

A personal union of national and insular health organization was instituted in 1918 when the then-resident chief quarantine officer of the Public Health Service was made a member of the territorial board of health. In 1920 he was made its president and chief executive officer. But a year later this union was terminated when he was transferred to another post. The Service officer replacing him as the quarantine officer was not chosen to the territorial board.

Thus in all respects the national health policy in Hawaii is one of as careful preservation of local autonomy as in an American state. The results of such a policy are not easy to measure. Leprosy is being handled vigorously and effectively under local auspices. The annual reports of the Public Health Service indicate that anti-plague measures, such as rat-proofing, might be carried on more vigorously. But it is safe to say that with important health problems to face the territorial administration is as good as that of many American states. And the advantages of local initiative and control are very real.

Porto Rico.—The present public health organization in Porto Rico is practically identical with that of Hawaii; its history, however, has been considerably and significantly different. Like Hawaii, Porto Rico has a governor appointed by the President of the United States with the consent of the Senate, and a local legislature. Instead of reporting to the Interior Department the governor sends his annual reports to the Secretary of War, in whose department there

is a Bureau of Insular Affairs exercising some supervision over the island government. In the case of public health the supervision by the War Department is so tenuous that the Surgeon-General of the Army has no direct or indirect part in the control of insular health administration. As in Hawaii the United States Public Health Service administers maritime quarantine directly.

The internal insular health organization differs from that of Hawaii only as do American states from one another. The governor and insular senate appoint a director of the department of public health. Associated with him in an advisory or conciliar, rather than controlling, capacity is an insular board of health consisting (1920-1924) of four physicians, one pharmacist, one attorney, one sanitary engineer, and a secretary.* The insular health department is divided into bureaus and carries on the various functions usually assigned to an American state health department. This organization, however, is a sequel to a much less autonomous system of administration accompanying the period of territorial acquisition. In this respect it differs radically from the public health history of Hawaii.

Immediately following the Spanish-American War the

* The evolution of insular central and local health organization is similar to that of some American states. Under the Government of the Occupation the central authority was a board of health. Later there was created a central department under a single executive. In 1911 a law was passed again conferring executive powers on a board of health. A year later the law was changed so as to make the board advisory with semi-legislative rather than executive power. See *Report of the Governor of Porto Rico*, 1919, p. 27; 1920, pp. 26, 27.

A law of 1912, following the precedents of the military administration, centralized appointment and supervision of the local or municipal health officers in the insular health authority. In October, 1919, this part of the law was changed to give greater autonomy to local officials, including the right of municipal legislative bodies to ratify nominations of local health officers made by the central authority. As might be expected, the insular commissioner of public health in his 1920 report thought this a backward step on account of the unprogressive character of the local assemblies. He urged a return to central control. See *Report of the Governor of Porto Rico*, 1920, p. 116.

American Army remained in Porto Rico and, according to custom, organized a provisional government. The Army officers in charge of each of the garrisons in various parts of the island made up a general board of health *ex officio*. The chief medical officer at each garrison became the local public health executive. Under this authority there was carried on from July, 1898, to May 1, 1900, a vigorous sanitary administration affecting the civil population. Under Spanish rule there had been almost no health organization or health education. Under the military-medical rule insular vital statistics were for the first time collected with some adequacy. More severe examinations for medical practice were set up, sanitary inspection of cities instituted, and laboratories for food and drug examination organized. The most spectacular accomplishment was the general vaccination of the island population against smallpox which freed the territory immediately and for many years thereafter from the epidemics which had hitherto been of frequent occurrence.[2]

When in 1900 the civil government superseded the military rule it was, no doubt, with some reluctance that those in charge terminated the Army public health administration of the island. The change made, however, was not abruptly to the autonomous system of today. From 1900 to 1917 the Organic Act for Porto Rico provided for the appointment of the director of the insular department of health by the President of the United States and also required that he work under the direct supervision of the governor, who is appointed by the American central government. Since 1917 the more decentralized control already described has been in operation.

During the first years the insular health authorities called from time to time upon their predecessors, the Army Medical Department, for expert assistance. In 1904 Captain Bailey K. Ashford of the Army Medical Corps was detailed to Porto Rico to act as head of the Anemia Commission.

His researches were successful in relating the widely prevalent anemia in the native population to hookworm disease. Under his advice an anti-hookworm campaign was instituted. So also in 1913 during a plague outbreak on the island three medical officers from the Army were detailed there in response to a request voiced through the Bureau of Insular Affairs. This incident serves, however, to mark the end of the special relationship between the Army and Porto Rican health activities. The plague laboratory set up by the military officers failed to establish satisfactory coöperation with the Public Health Service quarantine officers also engaged in anti-plague operations. Later in the year the Army officers withdrew and the direction of the anti-plague campaign was taken over by the Service.[3] So long as the special sanitary problems of a territory are those of quarantinable diseases the Public Health Service would seem to offer the more economical relationship between insular and national health agencies. Diseases such as plague are not, however, Porto Rico's main problems. To quote from the 1920 report of the governor (p. 24):

> The work of the department of health in Porto Rico, like that of education, presents a huge task, which at times seems almost discouraging, and both of these departments work under two severe but inescapable handicaps: (1) An extremely dense and crowded population, which is at the same time steadily and rapidly increasing; (2) the cumulative effects of many long years of neglect, which neglect has resulted from the viewpoint of sanitation, in widespread infection, soil pollution, and deplorable housing conditions for the poor all over the island.

As we might expect from such social conditions, the principal disease problems are tuberculosis, malaria, uncinariasis (hookworm), and preventable infant mortality, which taken together account for 60 per cent of the death rate and a large amount of illness.[4] For their conquest there must be not only immediate and thorough sanitary programs, but also a long-time improvement of economic, social, and educa-

tional conditions. It would seem that to expect Porto Rico with its poverty and ignorance to attain a higher health level through its autonomous efforts is a little like expecting it to raise itself by pulling on its own bootstraps. On the other hand, extensive instruction in home and personal hygiene such as is involved in the prevention of the diseases from which the island population suffers requires the adequate support of local public opinion. Something between military-health control and complete autonomy would probably be the wisest policy.

Recent tendencies seem to be toward this middle ground. In 1912, as an outgrowth of the work of the Anemia Commission there was created an Institute of Tropical Medicine, an official medical research agency reporting directly to the governor. On its board of directors the Public Health Service is regularly represented in the person of the chief quarantine officer of the island.[5] In 1919-20 the governor and insular commissioner of health requested an unofficial American health agency—the International Health Board—to send a commission to study Porto Rican disease conditions, especially tuberculosis, hookworm, and malaria. The result of the survey was a coöperative arrangement for a demonstration hookworm prevention campaign to which the International Health Board contributed 75 per cent of the cost and the island government 25 per cent. This work is still going on.[6] Arrangement was made also for scholarships to give special training in public health work to Porto Rican physicians, on a fifty-fifty financial sharing basis.

Such outside aid, which does not disturb local responsibility for the attainment of permanent results, is what Porto Rico needs. The results of island health administration have by no means indicated that the relaxation of national health control from benevolent military despotism to almost complete autonomy has been a mistake. But considering the severe sanitary problems faced by this none too rich territory, it is a fair question to ask whether the national govern-

ment or some other outside agency should not assume toward it an obligation to give aid through detail of personnel and financial subsidy.

The Philippines.—The history of public health administration in the Philippines is much like that of Porto Rico. Although a civil governor (William H. Taft) was appointed in 1901, shortly after the end of the Philippine insurrection, it was not until 1907 that the first territorial legislative assembly was convened. In the intervening years the Philippine Commission, composed of five men appointed by the President of the United States with the civil governor as its chairman, had control of the administration of the islands. During this period the central health authority was the chief Army medical officer stationed in the islands; the subordinate personnel consisted chiefly of members of the Army Medical Corps.* This central health organization was formally called the Public Health Service, its chief bore the title of commissioner of health, and it was a division in the department of public instruction with one of the five members of the Philippine Commission at its head. It may, therefore, be called a régime of military health control, extending over a considerably longer period than in Porto Rico. The period of Commission rule was characterized by vigorous, efficient health activity, with measurable sanitary improvements and health training of the civil population, especially the school children. A board of three Army medical men was created for the special study of the local tropical diseases (malaria, beriberi, tropical dysentery, and intestinal parasites) and continued its research activity until 1911.

When the Philippine assembly was convened in 1907 the military control of health administration was greatly reduced. The United States Public Health Service, however, succeeded practically to the position vacated by the Army. As elsewhere, the Service had established its maritime quar-

* In Manila, for instance, the board of health consisted of the Army officers located in that city.

antine stations on the islands.* In 1905 Dr. Victor Heiser, then chief of the quarantine service, had been given also the post of Philippine commissioner of health. This twofold position he retained until 1915, when he was transferred. His successor, Dr. J. D. Long, also continued in the double position until his transfer in 1918. For the subordinate sanitary personnel a Philippine civil health service was developed, many members of which were Filipinos who succeeded to the places vacated by the Army medical personnel.†

The Jones Act passed in 1916 was intended to provide for further autonomy in the general administration of Philippine affairs. But reservation was made for supervision over health activities by a clause providing that the Secretary of Public Instruction must be an American and that the health functions should be retained in his department. Considerable advance toward autonomy was made in 1918 by discontinuing the combination of Public Health Service quarantine officer with the office of Philippine commissioner of health and advancing the Filipino assistant commissioner of health, Dr. Vicente de Jesus, to the post of commissioner. When he retired in 1924 he was succeeded by another Filipino promoted from a subordinate position in the health service.[7] Filipinization was carried still further by the transfer of the government hospitals and such health activities as infant mortality work from the department of public instruc-

* In the Philippines it was necessary to maintain a local maritime or inter-island quarantine as well as a quarantine for trans-Pacific vessels. In order to avoid duplication of effort the United States Public Health Service has administered both quarantines as one and the insular government pays that part of quarantine expenses chargeable to inter-island activities.

† As in Hawaii, the Public Health Service established a plague laboratory at Manila. In coöperation with the local health agents an anti-rat campaign was also instituted. More recently the International Health Board has participated in a coöperative program of malaria control in the islands. See *Report of the Governor General of the Philippines*, 1924, p. 93.

tion to the public welfare commission in the department of the interior, which has a Filipino director. A similar transfer of control was made in the case of the boards of medical examiners.[8] According to the Wood-Forbes report, made at the beginning of the Republican administration in 1921, the relaxation of American control in the Philippines during the preceding eight years had had an unfortunate effect upon the health services. To quote:

> The excellent health service which previously existed has become largely inert. Much of the personnel remains, but it has lost the zeal and vigor which formerly characterized it. Appropriations for sanitary work and medicines, etc., are insufficient.[9]

The present governor-general, Leonard Wood, appointed in 1921, is a former Army Medical Officer with active experience in colonial health administration. In line with the 1921 survey in which he participated he has given indication that American official control would be partially resumed in health as well as in other branches of the administration. Although he has repeatedly in his annual reports recommended the reconcentration of health activities in the public health service under the department of instruction, no steps have yet been taken in that direction.[10] According to his analysis, the pressing insular disease problems are those, such as infant mortality, which require nursing service, clinics, and a long-time education of the population. This program involves local coöperation and a personnel close to the sympathies of the natives. It is likely, therefore, that the policy of autonomy in this field will not be greatly limited.

Alaska.—The territory of Alaska presents administrative and disease problems considerably different from those of the island dependencies which have just been reviewed. It contains two elements of population distinct in state of culture and living in different localities: the 18,000 to 28,000 whites, largely migrants from the states; and the 25,000 natives, nearly evenly divided between Indians and Eskimos.

Among the white population there are few special health problems. There is a relatively high educational and economic level with little crowding or extreme poverty. Aside from the pulmonary group of diseases, influenza, pneumonia, and tuberculosis—which when epidemic are likely to result in an unusually high mortality on account of the climate—there are no diseases of unusual virulance.[11] Among the natives, however, the living and housing conditions are very primitive. Smallpox and tuberculosis are serious menaces. In smaller degree gonorrhea and syphilis are special problems. As on the Indian reservations, the white physician must compete with the native witch doctor and his magic cures. Perhaps the chief difficulty is that of distance and sparsity of population. In an area of 590,804 square miles (about one-fifth of the area of the United States) Alaska has a population of some 55,000. In a native village there are rarely more than 200 or 300 people.[12] The distance between settlements is great and transportation difficult. In a word, the drawbacks to adequate medical and health control of the Alaskan natives present in an exaggerated form those found among the Indian tribes on the American reservations.

The type of health organization developed to meet this geographical-social situation is not inappropriate. In effect there are two divisions in the Alaskan administration. There is the territorial governor appointed by the President of the United States with the consent of the Senate, and a locally elected bicameral legislature after the American state pattern.* Under the Organic Act of 1912 the governor was made territorial commissioner of health *ex officio*. Until 1919 he had practically no central health staff or organization. In that year the United States Public Health Service quarantine officer at the capital city, Juneau, was appointed territorial commissioner of health by the governor. Three

* The present system was inaugurated in 1912. Before that there was a territorial governor serving without a legislature.

health districts were created, in two of which districts quarantine officers of the Service were put in charge. In effect the Public Health Service officers stationed in Alaska became by the governor's designation a skeleton territorial health organization. It was evident that such machinery was designed mainly for emergencies such as the influenza epidemic which swept through the land that year.[13] The governor, therefore, urged upon the legislature the creation of a full-time commissioner of health with an authorization for the filling of the position by a Public Health Service officer on detail. Although the territorial assembly passed the necessary legislation in 1920, thus far the post has been filled by local appointment rather than by detail.[14] In the larger municipalities where practically all of the white people live there is a regular city health administration; in the smaller ones the locally selected board of education serves also as a board of health and administers local sanitary law through an available physician designated as the local health officer.

The health of the Alaskan natives, as well as their educational and industrial interests, is intrusted by law to the United States Bureau of Education, which operates through its Alaskan Division with headquarters at Seattle, the chief port for Alaskan shipments. The school function, as may be guessed from the Division's inclusion in an educational bureau, is one of the principal activities stressed among the natives, the other services being less technical. The field organization consists of the school teachers sent out to the eighty-six native villages. These field agents are usually married people, of some maturity, who by sheer necessity combine many other activities with their conduct of an ungraded school.* Indeed, the teachers may be pictured as they set

* The average teaching experience of Alaskan teachers is eight years. Seventy per cent of the elementary teachers are normal or college graduates. In 1926 there were 154 school teachers and 6 superintendents or district supervisors dealing with the natives. Often the husband and wife are both employed as teachers in a village.

out on their journey to the isolated native villages as carrying with them the civilization of their benevolent government. To quote:

> Not only must these Federal employees be capable of teaching school, but they must also possess practical abilities which will enable them to promote native industries (in northern Alaska this means promotion of the reindeer industry; thus this rather strange alliance between pedagogue and reindeer trainer), domestic arts, personal hygiene, social welfare, and in general improve the living conditions of the adult as well as the school population of the village and vicinity.
>
> The schoolroom and living quarters of the employees are usually under one roof, forming a center from which quite often there issues the only uplifting and civilizing influence in that community.[15]

Very few of these school teachers have had any special or professional training in medical or public health work. Theirs is distinctly amateur activity fortified only by a standard medical kit and medical book furnished each of them by the Bureau of Education. Often, however, it is the only medical and health knowledge within the reach of the village community.[16]

The field force of school teachers is augmented by a chain of small hospitals, caring for native cases, located at various points. There were in 1922 six such centers (Juneau, Kanakanak, Akiak, Nulato, Noorvik, and Haines) with an average of a dozen beds and with a single physician and nurse in charge. In Juneau the hospital provides a training school for native nurses. In addition to the hospital equipment, nurses have been located at Metlakatla, St. Michael, and Wales for school and visiting work, and contract physicians for native cases are employed at Ellamar, Cordova, Hoonah, and Nome. Although there is a great need for one or more tuberculosis sanatoria, there is as yet no such institution in Alaska.*

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* By contract with the Bureau a sanitarium at Portland, Oregon, has been receiving for treatment all cases of insane native patients. Although expert care is obtained, the governor in his 1919 report (p. 445)

The Public Health Service supplies a modicum of additional health service to the natives. For several years previous to the war it detailed an officer to visit the various Alaskan localities, offering relief to those in need and giving instruction to teachers and natives in hygiene and preventive medicine. Another indirect service is that given by Public Health Service officers detailed to Coast Guard vessels, some of which patrol the waters of the extensive Alaskan archipelago rendering medical and other aid to the natives in their isolated and otherwise inaccessible villages.

This comprises the dual medical and health organization of the territory. It has for long been a practice to condemn out of hand the multiplication of federal administrative services operating in Alaska, and especially the lack of any local unifying direction or supervision. The reports of Governor Riggs (1918, p. 562; 1919, p. 410), of Governor Bone (1921, pp. 7, 10), the unpublished bulletin prepared for Secretary Lane entitled "Red Tape in Alaska," and many federal reorganization studies point to these as the main causes of Alaska's governmental difficulties. Duplication, however, does not appear to be a real evil in the case of Alaskan health work. At the time of an epidemic it would undoubtedly be desirable to have unified control of all the available health and medical personnel and resources in the territory for rapid mobilization in the most economical way. But the present duality does not result in any duplication or inefficiency in normal times. As in other places, what is more needed is the increase of equipment and per-

advocated the building of a federal insane hospital for natives in Alaska in order to overcome the handicap of transportation and change of climate and environment involved in the present arrangement. The question was again raised in 1925 when the Secretary of the Interior sent a special investigator to survey the various possibilities. He reported against the location of an insane hospital in Alaska and in favor of the establishment of a federal hospital for the Alaskan insane in the favorable climate of Eastern Oregon. (See *Report of Hon. Hubert Work, Secretary of the Interior, on the Care of the Insane in Alaska*, House Doc. 432, 69 Cong. 1 Sess., June 11, 1926, 43 pp.)

sonnel for supervising, visiting, and instruction, the more thorough and adequate training of native teachers in preventive medicine, and the development in the central office of some general bureau for research and staff work upon Alaska's special health problems.

It is not clear as to what difference exists between educating the Alaskan natives and the Indians on their reservations in the ways of the white man. The threefold function of education, sanitation, and industrial management exists in both cases. The building up of an adequate Indian medical-health service, including staff research agencies, might with profit and economy include the Alaskan natives within its jurisdiction.

The "Crown Colonies."—The several places under American jurisdiction with no local self-government may be likened to the British Crown colonies. At the present time these are Guam, American Samoa, the Virgin Islands, and the Panama Canal Zone. The first three are administered under the Navy Department, the last mainly by Army officers.

Guam and Samoa.—Guam and Samoa are isolated islands in the Pacific with backward native populations; they are owned by the United States chiefly because of their utility as naval stations. Guam has a population of about 13,000 and Samoa of about 8,000. Practically the only continental Americans on the islands are the Navy personnel. By convenience or accident Congress has left their government to the President and he in turn has always appointed a Navy officer as governor.*

In assigning officials to this task the Navy has followed its traditional policy of periodic transfer of station. The naval

* In Samoa the territory is divided into three districts, each presided over by local chiefs. Under these chiefs in the native villages are subchiefs. Once a year a general meeting of the chiefs is held for discussion of public matters and the ratification of laws. This is not, however, a body with either the affirmative or negative powers of a constitutional legislative assembly.

officer, therefore, sails into one of these stations with his title of governor, and for the period of his stay he, with his ship's officers and crew, carries on the island government. Among these officials is the ship's medical officer, who is put in charge of the local health administration. It is a system of administration by rotation in office without a spoils system. The island of Guam came under Navy control in 1899. Up to 1916 there had been thirteen governors, an average of a little less than one a year. In Samoa there were seven governors during the first twelve years of American control, an average tenure of less than two years.[17] The explanation of this rotating personnel is found in the following quotation from the 1920 report of the Surgeon-General of the Navy (p. 881):

> Under the cognizance of the medical department comes the (Guam) naval hospital, Tumon leper colony farm, naval cemetery, quarantine station, besides about a dozen sanitary outposts widely scattered all over the island. From this it will be appreciated that it is necessary to maintain a large and efficient medical personnel at all times. A widely fluctuating complement reacts badly for efficiency. . . .
>
> The climate is good during about one-half of the time, but very hot and oppressive during the other half. There seems to be something very irritating, nerve-racking and disagreeable to Americans about the climate. They appear to be under tension, more easily upset, more irritable and more depressed mentally, so to speak, than at other stations. For this reason, if no other, the tour of duty here should be not more than eighteen months for both officers and men. If a station ship could always be kept here to go on "health trips," as was previously the custom, it would offset to a large extent existing isolation, lack of transportation, and other disadvantages.

Despite the shifting personnel it is of course true that the naval medical officers assigned to duty under the governors, although not possessing as much accumulated corps experience in the sanitary administration of civil areas as the Army, are all professionally qualified for their duties.

In both possessions the health of the natives is, in general,

good. In one or both there exist tropical diseases such as yaws, gangosa, dengue, hookworm, and other intestinal troubles. In Guam there is some leprosy. In Samoa tuberculosis exists and measles has twice resulted in serious epidemics (1893 and 1911) with unusually high fatalities. Gonorrhœa exists but is under control. Since there are no civil physicians on either island, all of the care of the sick is under the naval medical system. Each includes a hospital under the senior naval medical officer which gives instruction in home sanitation as well as regular medical care. A hospital training school for native nurses has been established in connection with each hospital through which it is planned to form centers for native hygienic and sanitary training and to which also, the nurses will return from time to time for additional instruction.[18] At Guam there has been established a leper colony and a tuberculosis hospital. The senior naval medical officer is the health officer for the island. In Samoa he is advised by a board of health consisting of two other naval medical officers with two nonmedical officers. Districts are established for purposes of general governmental administration, each with a sanitary inspector (always a native, in Guam). In Guam birth registration and compulsory vaccination have been inaugurated. Every native child on the island is sent once a year to the hospital for observation and, if necessary, treatment. In Samoa there are frequent sanitary inspections. Instruction in hygiene and care of diseases is emphasized. A book on hygiene in the Samoan language is used in the schools. No drugs can be imported unless approved by the health officer.[19] There is, therefore, on both of these islands, despite the handicaps of rotation, a rather highly developed system of state medicine and public health administration under national auspices.

The Virgin Islands.—Three little islands with a total area of only 132 square miles upon which is crowded a population of 26,000, about 92 per cent of whom are wholly or partly negro, came under the American flag in 1917 and

were given the name Virgin Islands. The islands are a part of the Caribbean system, with maritime commerce connecting them closely with the American mainland. For this reason one of the first steps after their accession was the location of United States Public Health Service quarantine stations at their principal ports. The Organic Act for the islands gave the governing power to the President, with the proviso that he might, if he saw fit, assign an officer of the Army or Navy to act as governor. The Presidents have designated naval officers. Thus, as in Guam and Samoa, there have been two-year successions of admiral-governors with their naval assistants, possessing full legislative, executive, and judicial powers. As a matter of convenience two municipal governments with locally elected councils have been maintained in operation.

When the Navy administration was instituted, one of the first steps was a health survey of the islands carried on by members of the Naval Medical Corps, aided by an officer of the Public Health Service who had had considerable experience in Caribbean sanitation. The report showed the following conditions:

> . . . that there was (1) universal carelessness and ignorance in regard to the collection and storing of potable water; (2) very general constitutional impoverishment due to defective nutrition; (3) need of immediate attention to infant and maternal welfare; (4) inadequate municipal assistance for indigent sick; (5) lack of protection against typhoid fever.[20]

The diseases found most prevalent were leprosy, hookworm, dysentery, typhoid fever, and venereal diseases. On the basis of the survey the officers of the Naval Medical Corps in charge drew up a sanitary code, prepared a nomenclature of diseases, and instituted routine methods of reporting births, deaths, and sickness. Following this basic reform, attack was begun upon the communicable diseases. Compulsory vaccination for smallpox had been prescribed under the previous (Danish) rule, but the population was

again canvassed and vaccination widely administered.[21] Anti-typhoid inoculation was administered to all persons between the ages of five and forty-five unless excused for adequate reason. Further attack upon typhoid and other communicable diseases involving the construction of improved water and sewerage systems was made. The municipal government at St. Thomas, especially, made considerable improvement in this field under naval influence. As in Porto Rico, with a large proportion of the population on a low economic and educational level, preventable infant mortality has presented a difficult problem. Steps have been taken to diminish its toll. With the liberal aid of the Red Cross the Municipal Hospital at St. Thomas has been improved, a maternity pavilion and weekly obstetric clinic established, and a school for native nurses instituted under the direction of the naval medical personnel. In 1920 a Congressional commission under the chairmanship of Horace M. Towner of the House Committee on Insular Affairs, inspected the naval government of the islands and reported as follows:

> . . . the present government of the islands as administered by the Navy was a special pride to us. . . . We, of course, examined into the matter very carefully, because primarily the commission was sent there to see whether or not a change should be made and a civil government instituted. A civil government could not be instituted there that would take the place of the Navy government that would not cost twice as much, in my judgment, as it at present does. The Navy is doing a splendid work there in every regard. Especially the Medical Department has accomplished wonders. Their work has been such as to make every American proud of the American administration.[22]

Panama Canal Zone.—The last of the "Crown colonies" to be considered is the Panama Canal Zone, a strip of land carved out of the Republic of Panama five miles on each side of the Canal, with a population of about 37,000 (37,197 including 10,054 military population in 1924). The sanitary accomplishment in this Zone under Dr. Gorgas of the Army Medical Corps, fresh from his victories in Cuba, during the

period of the Canal construction is already familiar history. After the completion of the Canal the administration of the Zone was placed (in 1913) in the hands of a governor to be appointed for a four-year term by the President and Senate. The President has always appointed an officer of the Army Engineer Corps to this position and as uniformly the assistants have been drawn from military officers. The Chief Health Officer is invariably detailed from the Army Medical Corps. Here more than elsewhere there is a complete concentration of governmental authority under the governor. Although maritime quarantine is actually administered by officers of the Public Health Service, they are detailed for the purpose to serve under the immediate jurisdiction of the Zone's Chief Health Officer.

A very comprehensive health organization for both the military and civil population of the Zone has been built up. Two general hospitals, an insane hospital, a hospital for cripples, a hospital for chronic diseases, a leper colony, and several dispensaries are maintained. There is a system of district sanitary inspection and a central health laboratory.[23] Since the advent of American sanitary control during the construction period, the actual results have been notable. The Zone has, in a sense, become a model demonstration in tropical health work visited by sanitarians from Japan, the British and Dutch East Indies, and all parts of Latin America. To quote from an estimate of accomplishment made by its present governor:

> When we went there, in 1904, yellow fever was endemic, there were frequent outbreaks of bubonic plague, cholera, and smallpox, and the entire population was debilitated by malaria. All of these diseases, except malaria, have been stamped out, and the malarial rate has been reduced to an almost negligible figure.[24]

The Occupations.—Temporary wards of the national government have existed as a result of the American policy in the Caribbean which has involved the custodianship from time to time of various Central American republics. Public

health administration has been an important part of practically every Occupation if not a reason for its existence. And in the case of the Army Occupation of Cuba the public health work forms one of the most brilliant chapters in what may be called American sanitary imperialism.

Cuba.—Cuba was in the hands of the United States Army at the end of the Spanish-American War. Pending final disposition of the territory it was governed, as was Porto Rico, by an Army medical-health organization. A central health officer and a board of health consisting of military officers were set up. Army surgeons acted as local health officers and health boards. At the same time the (then) Marine Hospital Service took charge of the island quarantine system. Its officers often served in place of military-medical men as local health executives, or with them as members of the military boards of health. Coöperation between the two services seems to have been satisfactorily maintained throughout.

Cuba, and especially the harbor of Havana, had for many years been notorious as the center for the transmission of yellow fever to the southern ports of the United States. There was, therefore, a vital interest in taking advantage of temporary control to improve this weak spot in the sanitary system of the Western Hemisphere. Both the Marine Hospital Service and the Army carried on investigations into yellow fever on the island. The Army Commission, however, as we have seen, did much more elaborate work and was amply rewarded by its experimental vindication of the Finlay theory of mosquito transmission. Following this discovery there was set up under Dr. Gorgas of the Army Medical Corps, at Havana, a thorough sanitary organization based upon the new knowledge for eliminating yellow fever. In coöperation also the Marine Hospital Service erected a more effective maritime quarantine.

In 1902 the American Occupation of Cuba was terminated. In the case of the quarantine system, however, the with-

drawal of federal control had been anticipated by a gradual "Cubanization" of the administration. During the Occupation the cost of the quarantine service had been paid for out of insular revenues and the treaty of withdrawal provided that Cuba should maintain an adequate quarantine and revenue system. The actual change from American to insular authority is described by the Surgeon-General of the Marine Hospital Service as follows:

> Upon the recommendation of this office (chief quarantine officer of the island under the Marine Hospital Service) the military governor designated Dr. Eduardo F. Nuñez as chief quarantine officer for the Republic of Cuba to date from May 30, 1902, and designated the Cuban quarantine officers at the various ports of the island placed under bond to receipt and care for the quarantine property. By these advance preparations the incoming (Cuban) quarantine service was transferred to the new Republic in practical, running shape, and has been continued as a whole, in pleasing contrast, with less friction and disruption than many other branches of the government. The transfer of property was complete so far as purchases had been made from insular funds, all steam boarding launches, floating and shore disinfecting plants, office furniture, stationery, even to pens and inkstands.
>
> The Cuban quarantine officer simply continued in the daily routine of duty in which he had been trained, and responsibility of which had, as a matter of fact, been placed upon him for some little time before its official confirmation—in other words, the duties of the Marine Hospital training school officially ceased May 20, 1902, and the Cuban quarantine graduates are now in command, with lines of procedure and precedents to meet every occasion that may arise.[25]

Such a policy of educational Occupation might well stand for the best in enlightened imperialism. Perhaps it indicates the advantages in training, outlook, and flexibility of a civil over a military branch of government. At any rate, the quarantine administration seems to have survived American withdrawal more adequately than the general sanitary administration relinquished by the Army.[26] And it may be significant that in 1909 after the Second Occupation the Cuban Republic chose as its chief health officer (Director of Sani-

tation) Dr. Juan Guiteras, a former member of the Marine Hospital Service.[27]

Santo Domingo and Haiti.—The Occupations of the republics of Santo Domingo and Haiti have been carried out by the Navy and Marine Corps rather than by the Army. In consequence the health activities have been under the Naval Medical Corps. Santo Domingo was occupied in 1916 and a sort of crown colony (or naval station) government set up with an admiral at its head, depending for his authority largely on the Navy and Marine Corps guns. The medical and sanitary provisions of the diminutive republic were found to be rather primitive and the disease problems acute. Hookworm, enteric dysentery, dengue, influenza, typhoid, malaria, venereal diseases, pneumonia, and trachoma all had to be reckoned with.

The attack upon many of these diseases requires health education and a certain amount of local coöperation and support. A military government resting so visibly on force could not expect to accomplish much in these directions. The changing methods of administration during the years of Occupation reveal the inherent difficulties of the situation. At first the chief sanitary officer under the governor was given supervisory powers only over the local Dominican health bodies. It was hoped to carry out improvements through education and suggestion. But in 1919 the military government, dissatisfied with the lack of progress, abolished the local administrative bodies and centralized the sanitary organization in a national Department of Sanitation and Beneficence under the chief sanitary officer, a naval medical man. Sanitary districts were set up with the Navy medical officers, who had been assigned to local garrisons, serving as the local health officials. An advisory public health council composed of Dominicans was instituted in connection with this centralized, military system.[28] Later, as troops were withdrawn from the interior, local appointees of the Dominican government replaced the naval medical officers. Dur-

ing the Occupation an ambitious hospitalization program was inaugurated, which included the operation of several charity hospitals, a leper colony, and an insane asylum. A system of small dispensaries was established in connection with district sanitary headquarters. There was considerable activity in municipal sanitation, quarantine, regulation of medical practice, sale of drugs, and compilation of vital statistics.[29]

In the summer of 1924, after approximately eight years, the Occupation was ended, the troops were withdrawn, and the native government succeeded to the control of its own affairs. How much the temporary alien American government has resulted in permanent improvements in health conditions or organization, it is impossible to say. The inherent difficulties of such imposed administration in the hands of military and naval men with their shifting personnel undoubtedly limited greatly such possibilities of improvement. Perhaps of as much consequence as any was the opportunity presented for Dominican contact with civil medical agencies in the United States. In 1920 the Harvard University School of Tropical Medicine sent an expedition to Santo Domingo for the investigation and treatment of yaws. During the same year the International Health Board undertook a hookworm survey of the Republic.[30]

In Haiti the Occupation, although begun in the same year as that of Santo Domingo, is still in existence (January, 1927). After the landing of the Marines in 1916 a treaty was drawn up between American representatives and a favorable Haitian government which provided for the manning of several of the important departments of national administration by American officials nominated by the American President. One of these was the National Directorship of Sanitation to which was appointed an officer detailed from the Naval Medical Corps. No notable accomplishments appear to have been made under this arrangement. Doubtless the difficulties have been great. Until 1919 there was no adequate sanitary law. Existing agencies needed to

be organized and there was lack of adequate funds. To quote the report of the Secretary of the Navy for 1920 (p. 235):

> In matters of sanitation, the work has been difficult, owing to the wretched sanitary habits of the people, their ignorance and their opposition to change. . . . It will probably be a long time before so ignorant a people and one of such general unsanitary habits and customs can be brought to regard sanitary regulations in any other light than as a restriction upon personal liberty.

Some improvements have been made. A native nurses' training school has been set up and operated by the Red Cross. The hospitals generally have been improved and in connection with them free clinics established. A laboratory for the scientific study of local diseases has been organized. In 1920 the Republic was visited by a smallpox epidemic and under the Department of Sanitation the entire population was vaccinated. In the cities there is some improvement in garbage disposal, sewage disposal, protection of food in markets, and mosquito and fly eradication.

Here, as elsewhere, it is noted by observers that "officers are changed too often to build up a body of experience, and enlisted men are too anxious to get home to take any interest in the people." [31]

The District of Columbia.—Considerably different from the territories described above is the area of land known as the District of Columbia. Although under direct national control, the District is not administered directly by the national executive departments. Congress, acting mainly through the District Committee in each House, serves as the legislative body for the territory. But for administrative purposes a Board of Commissioners, two of whom are appointed by the President from Washington citizens and a third member detailed from the Army Engineer Corps, is in charge. Among other things this Board makes the District health regulations under powers delegated to it by Congress

and appoints the District Health Officer, a professional executive with indefinite tenure.

In addition to the regular organization there are several institutions serving District as well as federal needs. They include the Gallinger municipal hospital, the District tuberculosis hospital, St. Elizabeth's Hospital, the Columbia Lying-in Hospital, the Children's Hospital, the National Training School for Boys, the National Training School for Girls, the Industrial Home School, Board of Children's Guardians, and Board of Charities. Control over these institutions is exercised by boards of trustees or directors appointed partially or entirely by the President or Congress, together with national public officials serving *ex officio*. Some of the hospitals have a vague relation to the Department of the Interior through the requirement of an annual report. In substance, however, although the health organization of the District is created through appointments by the Executive and Acts of Congress, it is strictly separated from the national administration.

During recent years there has been agitation for securing more home rule for the District by eliminating the legislative and executive control of the national government. It is a question, however, whether more rather than less direct national control in the function of public health might not be beneficial. The largest single group of federal administrative servants are those working and living in the City of Washington and the District of Columbia. Counting their families, it is probable that one-half of the District population is dependent directly upon the national government. As employer, therefore, the United States has a special interest in the health administration of Washington.

The District Health Officer has maintained an orthodox and competent municipal sanitary organization, performing his work with the usual degree of efficiency. But there is slight evidence of the municipal use of the excellent facilities possessed by the national scientific health bureaus located in

the District. No doubt there are many unrecorded instances of informal coöperation between the local health agency and the Public Health Service, Children's Bureau, and pure food agencies in the Department of Agriculture. In epidemics the Public Health Service has offered direct aid. But as yet no sustained and regular coöperation has been established in the interest of a comprehensive and thorough program of health for the army of resident federal employees. The Congressional Joint Commission on Reclassification of Salaries appointed in 1919, which in its investigations dealt broadly with problems of the public personnel, recommended a closer connection. To quote from its report:

> As an integral part of any comprehensive employment policy, and more specifically as a means of increasing efficiency, the government should adopt a program making adequate provision for the health and for proper physical working conditions for its employees which will enable it at least to keep pace with the more progressive concerns in the industrial world. To be of the greatest value, all work along these lines should obviously be coördinated and concentrated in a single agency having at its disposal competent medical officers. The Public Health Service, which is already handling some work of this sort in the Treasury Department, is in an excellent position to function as such an agency. It is, therefore, recommended that the Public Health Service be charged with general supervision over all matters affecting the health of government employees in so far as these are connected with their official work. To exercise such supervision it should be specifically authorized and directed:
>
> 1. To establish rest and relief rooms. . . .
>
> 2. To establish a visiting-nurse system . . . to check up sick leave . . . to ascertain occurrence of communicable diseases and to prevent their spread through the medium of other employees. . . .
>
> 3. To conduct systematic periodical investigations of working conditions in government offices, so far as these affect the health of the employee. . . .
>
> 4. To conduct a systematic campaign of health education. . . .[32]

A program of industrial hygiene as comprehensive as this would necessarily involve the Service in local health matters. If it were instituted it might be better to have the President

detail a commissioned officer of the Public Health Service to serve as District Health Officer, just as now an Army Engineer is detailed for District construction work. By such a device a unified program of municipal health and federal employee hygiene could be carried through.

At times a more ambitious program has been put forward as an ultimate goal for the District—that of making it a model health demonstration area. This would involve bringing together the Public Health Service and District Health Office, the child hygiene and welfare units of the Children's Bureau, possibly the Child Hygiene Division of the Bureau of Education, as well as correlating the management of the various hospitals, training schools, and institutions in and around the federal city. The advantages of such a plan are manifest.

Federal Employees.—Outside as well as within the District the federal government as an employer has a special interest in the health of its workers. We have seen (Chapter IV) that its military, naval, and civilian maritime employees are surrounded with a special health and medical organization. Recently steps have been taken to promote the health and welfare of the largest civil field service—the Post Office. Postal employees are, of course, protected by the usual state and local health organizations where they happen to reside. Welfare work for them consists, therefore, in providing better sanitary conditions than those required by law, and in promoting those fruitful measures which transform the usual medical services into a direct ally of public health aims: first aid, occupational hygiene and sanitation, health education, clinics, and periodic physical examinations. Since postal employees are for the most part on a low wage level and are usually settled men with families, such work would seem to be especially desirable.[33]

When Mr. Will Hays assumed the Postmaster-Generalship in 1921 one of his early acts was to create the office of Welfare Director, to which he appointed Lee K. Frankel,

Ph.D., for many years notable in this type of activity in the insurance field. As might be expected, Dr. Frankel gave health work a prominent place in his program. An organization was created as follows:

> In the Washington Department a local welfare council has been set up representing the employees through their associations; the idea was that instead of hiring a personnel director the employees should, through these committees, direct their own personnel work and thus have some outlet for self-expression. Already the work of the Washington Departmental Council is functioning smoothly. A splendidly equipped first-aid room was opened recently; a new cafeteria and library are being installed.[34]

Through the activity of the Welfare Director an arrangement has been made with the Red Cross to outfit every post office with a first-aid kit. The Public Health Service has undertaken to make detailed yearly inspections of all important post offices and has coöperated in many other aspects of the health program for postal employees. Dr. Frankel resigned in 1922. He was succeeded by Mr. Henry S. Dennison, president of the Dennison Manufacturing Company and a national leader in employer-employee relations. In January, 1923, the name of the Division was changed to Service Relations Division. From the annual reports it is evident that this large employing agency of the government is developing, for its organized group of 150,000 workers, an enlightened policy of personnel relations, a large part of which continues to be health promotion and sanitation.[35]

Federal Prisoners.—The 5,000 to 5,500 federal prisoners, although they can hardly be called federal employees, are at least involuntary wards of the national government. They are under the immediate charge of the Superintendent of Prisons, a division in the office of the Attorney-General. Most of the male adult prisoners are in the three federal penitentiaries at Atlanta, Georgia, Leavenworth, Kansas, and McNeil Island, Washington. Juvenile cases, however, are consigned to the National Industrial Schools for Boys and Girls, respectively, in the District of Columbia, and mental

cases are received at St. Elizabeth's Hospital. Since there is as yet no federal penal institution for adult female offenders, they are assigned to state and local institutions on a contract basis. Reports indicate that the physician assigned to each prison is principally engaged in the regular work of medical practitioner, although to some extent he deals as a specialist with the unusually large number of psychiatric and narcotic cases. Prison sanitary conditions are often reported to be unsatisfactory by the physicians themselves. In spite of the fact that health work among prisoners is only incidental, there might well be established more complete coördination with the regular federal health agencies both in such matters as research and treatment for drug addiction and in expert sanitary inspection and supervision. At present there seems to be no connection whatever.

National Park Service.—An example of simple and economical coöperation is seen in the case of the last of the federal areas to be considered—the national parks. In recent years these federal reservations, especially Yellowstone, Glacier, and Mount Rainier National Parks, and the Yosemite, have become summer playgrounds and vacation living places for hundreds of thousands of citizens. Such a situation presents distinct health problems, especially those of rural hygiene. The control of the business, hotels, transportation, and persons in these reserves is in the hands of the National Park Service, a bureau in the Department of the Interior.

Beginning in 1920, the Park Service obtained the cooperation of the Public Health Service in the solution of its sanitary problems. Such activity could hardly be undertaken with as great economy or efficiency by a medical or health organization built up by the Park Service itself. Sanitary engineers from the Health Service have been detailed to the larger parks to make surveys with reference to water supplies, stream pollution, sewage and garbage disposal, mosquito control, milk supplies, and kitchen sanitation. The

officer detailed to Yellowstone Park in 1921, for instance, had the following projects assigned to him:

> To obtain all the data possible relating to the cause of diarrhœa or dysentery in the Park. One or the other of these disorders or diseases has been more or less prevalent in this Park as well as in all the other national parks in previous years, and it is the intention to collect data from all the parks in regard to this matter.[36]

Summary.—The various territorial possessions of the United States are not large in extent, nor do their total populations exceed that of two populous states. But their health conditions have an importance out of proportion to their area or population. In them are to be found tropical diseases which present new and serious problems to preventive medicine. From some of them, dreaded diseases such as leprosy and bubonic plague have been, and may be, carried to the shores of the mainland. Their problems are unusually difficult because in most of them there exists a population very backward in hygienic tradition and education—often also on very low economic levels and thus unusually susceptible to such diseases of poverty as preventable infant mortality and tuberculosis.

In general the traditional national policy toward the continental territories has been that of local decentralization or, at least, deconcentration.* The purpose has been to build up a territorial government that will grow gradually into an internally self-governing commonwealth. This policy has also been followed, on the whole, in the widely scattered possessions not a contiguous part of the mainland. Here decentralization, although it has had in it much wisdom, might easily become a harmful dogma. There can actually be discerned, especially in the Philippines and in Cuba, a slightly different method—*viz.*, that of relaxing paternalism in health

* Deconcentration is used to describe the system of administration where the central government appoints the local chief executive, giving him charge of the local administration without much direction from the central offices.

administration. Such a policy seems to be a wise one indeed, and in the Cuban episode, in Porto Rico, and in the Philippines, constitutes one of the best chapters in American national health activity. But it has not been consistently, universally, nor always successfully applied. In the case of the naval stations there is slight evidence of its being carried out at all. And in the case of the recent Occupations under the Navy and Marines it is doubtful if the political and human bases for such activity have been present. In Panama it would seem that deconcentration rather than decentralization is to be the permanent policy.

The Navy, the Army, the Public Health Service, the Bureau of Education, in a minor way the Bureau of Insular Affairs, and the Department of the Interior, have had some part in territorial health activity. The question might well be raised as to whether one of these agencies or some coordinated organization of them might not succeed better in this capacity. The Public Health Service has succeeded notably in the practice of relaxing paternalism; the Army has won distinct success in paternalistic administration; the Navy has succeeded moderately. A real colonial office with a colonial health service, as well as other civil services, is probably not required. It should be borne in mind that colonial administration in the form of Occupations or otherwise requires political capacity, tolerance, human understanding, and a breadth of experience as well as administrative efficiency in the narrow sense. Civil services such as the Public Health Service are better fitted than the autocratically trained military and naval services for such work. If concentration of work is to be developed it should be, therefore, under civil auspices so far as health is concerned.

In the District of Columbia and among the national civil employees direct intervention by the federal health agencies is not justified by unusual difficulties in the prevention of disease, but rather because of extraordinary opportunities for demonstration of a complete and exceptionally success-

ful health program. For the government at Washington to undertake to provide for its civil employees the equivalent in medical and health services which it is already furnishing its uniformed personnel might now be termed a luxurious expenditure. But a higher statesmanship might see in such a program the best sort of economy. At any rate, the picture of the Capital City as a model health center, as it is now one of beauty, will be only reluctantly put aside by broad-visioned sanitarians.

CHAPTER XI

NATIONAL QUARANTINE AGAINST EPIDEMIC DISEASES

In the previous chapters the central government, in the rôle of doctor to federal wards rather than of sanitarian, has been described. Although important public health activities have been noted, they have been the outgrowth of the earlier medical administration. The national quarantine function which is now to be considered has, on the other hand, always been primarily one of disease prevention and sanitation rather than of curative medical aid. It is probably the oldest strictly public health measure to be exercised by our federal government, or, indeed, by any government. Long before discoveries in the nineteenth century regarding the causation, transmission, prevention, and cure of the dreaded epidemic diseases, almost all seaports had put into practice the simple and arbitrary expedient of isolating persons, ships, or articles of commerce where communicable disease was present. The very name quarantine is derived from the forty-day period which Venice at the beginning of the fifteenth century required plague-infected ships to stand at anchorage, remote from the shore.

Although quarantine or isolation as a public health measure still survives, the process of eliminating epidemic diseases from commerce, as a result of accumulated knowledge, has become much more discriminating, elaborate, and scientific. Total isolation of ships for long periods has been succeeded by a system of international distribution of epidemic disease statistics, specific disease records for each ship in the form of "bills of health" and "sick logs," individual examination and differentiation between passengers, radical and specific

disinfecting treatment, and for cases of detention the accurate knowledge of the period of disease incubation.

For generations public quarantine was directed almost entirely against the great epidemic scourges or plagues. But as science has gradually yielded knowledge regarding the nature and extent of the communicability of other diseases not usually epidemic, the machinery of quarantine has been extended in some form to them also. In the case of foreign immigration the control of the channels of commerce has even been used to protect the community against persons whose physical defects are not communicable at all except doubtfully by the slow process of heredity. The earlier quarantine was directed rather indiscriminately against general articles of commerce supposed to be contaminated by contact with specific diseases. Modern sanitary science puts much less emphasis upon this means of communication. In its place there has developed gradually a system of police supervision over many specific articles of commerce such as water, milk, food, and medicines which may be the carriers of disease germs or human poisons.

The national quarantine function may be viewed broadly as the sum of all the federal regulations and interference with persons, articles, and agents of transportation which in the words of the former Surgeon-General, Walter Wyman, have as their object "to strip commerce of disease." [1] Or it may be looked at more historically and more narrowly as dealing with those diseases calling for urgent measures of isolation, detention, and suppression to prevent the spread of epidemics. The broader view which includes all regulations of commerce in the interest of health will be reserved for the chapter to follow. The present chapter will be concerned with the national attack upon the great historic epidemic diseases: cholera, yellow fever, smallpox, plague, and typhus.*

* Early quarantine regulations in the United States almost always included leprosy among the quarantinable diseases. Yet leprosy is cer-

Foreign Quarantine as a Local Function.—The task of protecting our country against foreign diseases which invade by sea or land was at the time of the founding of the central government considered to be one for the states to exercise through their own reserved powers. No national quarantine power was expressly authorized or proposed for inclusion in the federal Constitution, nor was any national quarantine agency created in the original organization of the machinery of administration. In fact, the states in the eighteenth century, far from considering it proper to grant maritime quarantine to the new central government, were content for the most part to leave its administration in the hands of the seaport cities as a local police function.

In those "days of stagecoaches and sailing vessels, it was quite true that disease in Charlestown was of little importance to Boston. . . ." [2] Still there is evidence that at about the time the continuance of scattered, irregular, and decentralized local control over the importation of epidemic diseases was acknowledged by the federal constitutional document, it was becoming ineffective and anachronistic as a sound method of administration. It required the nation-wide, at times world-wide, epidemics of cholera and yellow fever during the nineteenth century, however, to demonstrate the utter inadequacy of the original governmental division of power. The history of our quarantine policy during its first century and a quarter thus becomes one of painfully slow adaptation of legal and political thought to the administrative fact that quarantine of commerce had be-

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tainly not an epidemic disease and is of only slow communicability. In practice it occasioned very little apprehension or activity on the part of quarantine officials. Its classifying in this way was undoubtedly due to its comparative absence from the United States and the feeling of danger of its being imported. To a certain extent the other quarantinable diseases were also foreign diseases which were only occasionally imported into the United States. And if tuberculosis, syphilis, or scarlet fever had been prevalent in foreign countries and appeared only occasionally in the United States, they might at first have been included in the quarantinable diseases.

come properly a national, if not an international, function. The particular process by which centralization took place is worth observing not only as a record of public health administration, but also as an instance of the alternative possibilities offered by the federal system.

Long before 1878, when the first substantial federal quarantine law was passed, there were promising attempts to centralize control. Usually such efforts followed in the wake of a general epidemic. They were due to the impact of an aroused but transient public opinion desirous of preventing future disasters which spent its waning momentum against the inertia of states' rights traditions and the lively special interests of state and local quarantine agents. Probably the first effort was that following the yellow fever epidemic of 1793-5 in New York and Philadelphia. In 1796 a bill was introduced in the national House of Representatives which would have given the President considerable leadership in organizing and making more uniform the maritime quarantine in time of threatened epidemic. Its chief sponsor, Mr. Smith of South Carolina, urged in its favor the argument which waited approximately a hundred years to triumph:

> Epidemic diseases imported affect the United States at large. They do not merely affect the city where first imported, but they obstruct the commerce of all others; they not only embarrass the commerce, but injure the revenues of the United States.[3]

The House eliminated the paragraphs giving the President additional powers and passed the measure containing the provision that national governmental officials at the ports should aid in the enforcement of state and local quarantine and health regulations. The Senate committee attempted to reinsert a paragraph providing for national quarantine regulations, but this was defeated and the bill finally passed in the innocuous form in which it was received from the House (1 U. S. Stat. L. 474). Yellow fever raged again in New York in 1798. It led President Adams to include

the following recommendation in his annual message to Congress:

> But when we reflect that this fatal disorder has, within a few years, made repeated ravages in some of our principal seaports, and with increased malignancy, and when we consider the magnitude of the evils arising from the interruption of public and private business, whereby the national interests are deeply affected, I think it my duty to invite the legislature of the Union to examine the expediency of establishing suitable regulations in aid of the health laws of the respective states.[4]

This sturdy Federalist attitude did not meet with favor in a politically hostile Congress. Its only outcome, the Quarantine Act of Feb. 25, 1799 (1 U. S. Stat. L. 619), merely repeated the 1796 Act, providing also for the removal, in time of epidemic, of customs, judicial, and other federal offices from infected ports to safer areas for the transaction of business. During the next seventy years, although petitions and memorials asking for further federal legislation were received in times of provocation from commercial and local health bodies, nothing resulted. The years 1832-34 witnessed a very severe cholera epidemic which was felt especially along the Mississippi River. An Act of July 13, 1832 (4 U. S. Stat. L. 577), recognized the emergency only by authorizing increased federal revenue personnel and equipment to aid states and localities in enforcement of quarantine regulations.

At the close of the Civil War an epidemic of Asiatic cholera appeared in the South while the Northern troops were still occupying some of the Southern ports. Acting under doubtful war power, the Secretary of War issued stringent uniform quarantine regulations for the region. Some question was raised as to the legality of these measures. The introduction in Congress during 1866 of a resolution regularizing his action was made the occasion of an attempt by members of the Senate Committee on Commerce, notably the Northern Republican Senators Chandler,

Sumner, and Edmunds, to pass a law nationalizing the control of quarantine during cholera epidemics. It provided that the Secretary of the Treasury (as first introduced, the Secretary of War with the coöperation of the Secretaries of the Navy and the Treasury) should—

> cause a rigid quarantine against the introduction into this country of the Asiatic cholera through its ports of entry whenever the same may be threatened by the prevalence of said disease in countries having direct commercial intercourse with the United States . . . shall also enforce the establishment of sanitary cordons to prevent the spread of said disease from infected districts adjacent to or within the limits of the United States.[5]

The usual opposition in behalf of states' rights developed. Senator Grimes of Iowa, for instance, was sure that such centralization of quarantine would not only involve duplications and conflict between national and state officials, but also that it would be less efficient than local administration, finally asserting, "the proposed law will create about the greatest machine I have ever known attempted to be run by any Government on the face of the earth." [6] Finally it was urged that federal quarantine was the "entering wedge" which would lead step by step to control of all disease by a central bureaucracy. Constitutional objection was added. In spite of the defense of the bill by such cogent arguments as that of Senator Edmunds: "Cholera will not pay any regard to State lines. It does not know anything about State rights . . ." it was shorn of its essential provisions. What was substantially the law of 1799 was inserted in its place, and was repassed (14 U. S. Stat. L. 357).[7] The centralizing influence of a nationalizing war and of a severe epidemic were thus not able to federalize quarantine.

Epidemics of the 'Seventies and a National Quarantine Act.—The decade of Reconstruction saw a recurrence of epidemics of yellow fever and cholera which led finally to national legislative and administrative action. In earlier chapters we have seen that the decade of the 'seventies was

notable for the development of public health interest and organization in the United States. State boards of health began rapidly to appear; the American Public Health Association was organized; the American Medical Association devoted more attention to problems of preventive medicine and sanitation. It was, as we shall later see, the time when a most important attempt to create a general national health organization was carried through to temporary success. The recurrence of severe epidemics, the movement for a national quarantine, and the organization of general health agencies were all closely bound together in a complex relationship of cause and effect.

Of immediate importance in connection with quarantine was the reorganization of the Marine Hospital Service in 1871 with a professional head and a nationally organized expert and permanent corps of surgeons. Beginning in 1873, the annual reports of the Service contained articles upon the yellow fever epidemics coming under the observation of its officers in the field.[8] These officers were stationed at the principal seacoast ports. They were directly interested in the care and health of the seamen who more than any other class were sufferers from imported epidemic diseases. It was only natural that they should extend their activities during epidemics beyond the care of seamen to the civilian population. By an early order of the Supervising Surgeon-General, Dr. Woodworth, the field officers were encouraged to aid their own and neighboring communities in combating epidemics under the Acts of 1796 and 1799. In some instances they seem to have rendered notable services during these years. In 1874 they were directed to inspect local quarantine systems and to acquaint themselves with local quarantine laws. By these means there were developing rapidly a national agency and personnel competent and ready to assume additional quarantine authority. A yellow fever epidemic and severe cholera epidemic appeared in 1873. Recognition was given the broader interests of the seamen's serv-

ice by a Senate resolution which called upon its officers for a report upon the yellow fever epidemic. Recognition was also given by a Congressional statute which associated the Service officers with those of the Army Medical Corps in a similar investigation and report regarding the cholera epidemic.[9]

In 1876 Surgeon-General Woodworth was chosen to deliver a paper on quarantine before the International Medical Congress at Philadelphia. In this address Dr. Woodworth proved himself, as his earlier direction of Service officers had indicated, to be an active advocate of more centralized quarantine authority. He set forth a well-conceived national quarantine program including notification to American authorities of ship departures from infected ports (preferably by international agreement), uniform periods of detention of vessels from infected ports during the period of disease incubation, and international coöperation in attacking the endemic areas of yellow fever. His suggestions were formally adopted by the section of the Congress devoted to the subject.

The first action in Congress came as the immediate result of an earlier investigation of the quarantine facilities on the Southern and Gulf Coasts which had been ordered by joint resolution June 6, 1872. At that time the Marine Hospital Service reorganization had hardly been completed and the survey was assigned to the Army Medical Department. The report written by Dr. Harvey Brown of the Army Medical Corps was not made until after the 1873 epidemics had occurred. It urged strongly the establishment of a national quarantine system to be administered by a board to consist of the three Surgeons-General, with one of them, or an officer chosen from among the three medical services, to act as secretary and to have active supervision of quarantine.

The original draft of the bill based upon the report, as introduced in the first session of the Forty-third Congress (1874), proposed a grant of considerable additional power

to the central authority. The board was to be empowered to make regulations for maritime quarantine, subject to the approval of the President. In case of conflict between national rules and state and local quarantine regulations the national rules were to supersede the others. Except in case of such conflict federal rules were to be concurrent with state and local regulations. This proposal for a substantial increase of federal power met the usual states' rights opposition, led this time in the House by Representative Cox of New York, who was interested in preserving the autonomy of the efficient New York port quarantine then under Dr. Vanderpoel. The opposition was successful in securing an amendment eliminating the provisions that national rules should supersede state and local regulations in case of conflict, and that national rules were in any way binding on state authorities. With these changes the measure passed the House. In the Senate, however, constitutional objections were raised to any national quarantine authority whatsoever, and the measure failed to pass. Nevertheless, the numerous memorials in favor of the original bill from citizens in the South and its official indorsement by the National Board of Trade indicated considerable sentiment in favor of centralizing the quarantine power.[10] Several other bills with similar objects were introduced at the next sessions of Congress. None, however, was favorably considered.

The immediate impetus to the National Quarantine Act of 1878 came from a convention of the local sanitary and quarantine authorities of twelve Southern seaports (excluding New Orleans) which met at Jacksonville, Florida, February 14, 1878, and adopted resolutions requesting Congress to establish a uniform and effectual quarantine on the Southern Coast. A bill framed by a committee sent from this convention in consultation with the Marine Hospital Service was introduced in the House. As presented it was similar to the one based upon Dr. Brown's report in 1874. It differed from it only in giving the central administrative au-

thority to the Marine Hospital Service rather than to a board of three. It included the suggestions made in Dr. Woodworth's address for foreign notification of diseases. Meeting the same objections from the same sources as the previous bill, it was amended in the same way, passed the House, was adopted by the Senate with practically no debate, and became law April 30, 1878 (20 U. S. Stat. L. 37).

Under the provisions of this Act the Surgeon-General, subject to Presidential approval, was empowered to make federal rules for the detention of vessels with epidemic disease on board or from infected ports, but with the stipulation that such regulations must not "conflict with or impair any sanitary or quarantine laws or regulations of any state or municipal authorities now existing or which may hereafter be enacted." [11] Other provisions empowered the federal officials to carry out national regulations where no local quarantine administration existed so long as they did not run counter to state or local quarantine law. The Act of 1796 had authorized federal officials to carry out state and local regulations. Now it was provided that on their own application state and local authorities were authorized to act as officers of the national quarantine system and to enforce national regulations. Sections 2 and 4 set up a system of foreign notification by providing that the American consular officers at foreign ports should make routine weekly reports to the Surgeon-General on the sanitary conditions at their stations. Special reports regarding the appearance of contagious diseases or the departure from a diseased port of any vessel for the United States were also to be sent to the Surgeon-General and to the local American port quarantine authorities affected. The Surgeon-General also was required to transmit the regular and special consular reports to the local health officials at the ports. No money was provided, however, for the further enlarging of the facilities of the Marine Hospital Service.

The Act of 1878 was an experiment in coöperative fed-

eralism. It was plain that actual quarantine equipment, personnel, and administration were to remain primarily state and local. To these were now to be added such national regulations as did not conflict with state regulations. A national system of notification for maritime epidemic diseases was instituted. And a central quarantine office with a small number of trained field officers to carry on the national functions and to render voluntary aid to the localities was created.

The National Board of Health Quarantine and Its Sequel.—Within three months after the bill was adopted the country was in the midst of the most severe yellow fever attack of the generation. Whole Southern communities were stricken and their commercial life paralyzed. The epidemic extended well up the Mississippi River Valley, affecting river cities of the North. Even if adequate powers and equipment had been given to the Marine Hospital Service they could not have been organized in time to meet the new crisis. But the Surgeon-General's office did become the national center of information in regard to the progress of the epidemic and the medium for the distribution of supplies and funds contributed by the North to the stricken Southern communities.

Public opinion generally was aroused to the need of creating more adequate machinery to obviate the recurrence of such a calamity, especially to prevent the revival of the same disease during the next summer season. Organized forces appeared with bills to extend the quarantine powers of the Marine Hospital Service. There became involved in the matter the whole problem of the creation of a general national health agency and disputes between those holding rival theories as to the causes and transmission of yellow fever. The legislative proposals and pressures of this period are examined in detail in a later chapter (Chapter XVI) in connection with the creation of the National Board of Health. So far as national quarantine was concerned the result was the passage of the Quarantine Act of June 2, 1879 (20 U. S.

Stat. L. 5), which superseded the law of the previous year but was made applicable for a four-year period only.[12]

Several of the provisions of the 1878 law were continued, although all national quarantine power was transferred from the Marine Hospital Service to the newly established National Board of Health. Foreign notification was retained and strengthened by the institution of a compulsory certificate or bill of health to be furnished by the resident consular officer to each vessel sailing for American ports. During its four-year existence the National Board undertook also to promote Dr. Woodworth's proposal of an international system of notification. To this end it succeeded in having the Secretary of State convene an international sanitary conference at Washington in 1881. Although the conference failed to secure its object of international notification, it did obtain the necessary coöperation for the enforcement of the American bill-of-health procedure.

The Act of 1879 wrote into law what had been proposed in 1874 and again in the original bill in 1878 regarding the extension of national quarantine rules. It was still presumed that both national and local regulations would be enforced, but it was provided now that where local quarantine rules were not sufficient the Board might make additional rules enforceable by the state sanitary authorities, or in case of their failure to enforce, by an officer detailed by the President. This looked to positive national action. To make it possible $500,000 was appropriated for the first year's expenses and in a supplementary measure adopted July 1, 1879 (21 U. S. Stat. L. 46) the Board was authorized to erect temporary quarantine stations along the coast. Four stations for the detention and disinfection of infected vessels were established by the Board on the Atlantic and Gulf Coasts. After a conference of state and local quarantine officers a set of uniform national quarantine regulations was drawn up applying especially to vessels at foreign ports

and for disinfection of vessels, cargoes, passengers, and crews.

Although a more adequate quarantine for the prevention of imported epidemic diseases was secured by this system, the duplication of agencies became in itself an evil. Commercial interests that had hoped for relief under the new law often encountered only additional delay. Friction between national and state or local quarantine officials led some state agencies to refuse recognition to national inspection or disinfection and to subject commercial vessels to a second period of detention. The Board could keep out infected vessels. But under the law it could not guarantee free passage *in* to vessels it considered free from danger and disease.

Epidemic diseases did enter the United States during these years and the Board became at once involved in the administration of interstate quarantine. State and local authorities were further estranged by its vigor in this direction.[13] Partly on account of these almost inherent difficulties as well as other factors (analyzed in a later chapter) the Act creating the National Board was allowed to expire at the end of the quadrennium. With it the Quarantine Act of 1879 became a dead letter and the Act of 1878 was revived with administrative authority restored to the Marine Hospital Service.

Although operating under a less effective law, the Service was able to retain some of the administrative features instituted by the National Board. The system of foreign notification was continued. Although the power to grant bills of health was extinguished, notification was made more effective by the location of sanitary inspectors at strategic foreign ports to aid in inspection and detection of epidemic diseases. The four national quarantine stations established by the Board were taken over and extended. By the year 1890 there was a series of national stations extending around the national coast line as follows: Delaware Breakwater; Cape

Charles, Virginia; Sapelo Island, Georgia; Key West (vicinity), Florida; Ship Island (vicinity of New Orleans); San Diego, California; San Francisco, California; Port Townsend, Washington. Upon the occasion of threatened epidemics from across the Canadian and Mexican land borders, the Service had an organized system of quarantine also through the use of train inspectors. Despite these gains the national quarantine defenses under the powers of the revived statute were plainly inadequate.

> . . . Each State had its own individual requirements. Different cities in the same State had different requirements. One city, in order to divert trade from its neighboring rivals, would be less exacting than the other.[14]

Interstate Quarantine and the Act of 1890.—Partly on this account, partly on account of the inherent difficulties of complete exclusion of carriers, with the scientific knowledge then available, yellow fever continued periodically to pass the national frontier and to obtain a season's foothold at Southern ports. The most arduous and vexatious activity of the Service during the next two decades, as previously of the National Board, became that of localizing each epidemic at the ports in so far as possible in order to prevent its spread.*

Hardly had the Service succeeded to the position of na-

* In 1879 when yellow fever appeared again in Memphis and New Orleans the National Board drew up standard regulations for interstate steamboat and railroad quarantine which were adopted widely by the Mississippi River states. River inspection for all boats leaving New Orleans was instituted under the enlarged powers granted by the 1879 law—although opposed by the local authorities. The effect of this procedure was to expedite rather than to hinder commerce since, in previous epidemics, a report of yellow fever at New Orleans was the signal for the imposition of complete and drastic non-intercourse with the infected district. Many of the Mississippi states and localities were prevailed upon to give up these "shotgun quarantines," as they were called, and to accept as sufficient protection the inspection certificate issued by the National Board. On account of the smaller degree of power given to it the Marine Hospital Service was not able to act in such disregard of local opposition.

tional quarantine authority in 1882 when it was called to activity in the South. Under the Quarantine Act of 1878 no independent power was granted over land or interstate quarantine. Fortunately, however, the annual appropriation of a considerable lump sum, which had been made to the National Board for combating epidemics, was continued for the use of the Service. With this "epidemic fund," as it came to be called, the Service was in a position to lend financial aid, expert personnel, and actual supervision when requested by states or localities. It possessed a corps of seasoned officers already veterans in combating yellow fever who could be mobilized rapidly at any place. In almost every case during these years where the disease appeared we hear of Dr. Murray, Dr. Branham, Dr. Hutton, or Dr. Guiteras of the Marine Hospital Service taking an active part in the quarantine and suppressive work. Beginning with the Jacksonville epidemic in 1888, a regular procedure was followed, consisting of the isolation and depopulation of the infected municipal district, rigid maritime quarantine to protect other places, land quarantine by means of train inspection which allowed unexposed persons and goods to leave the infected locality, a portable detention camp where exposed persons might undergo a period of probation before travel, and a hospital camp for the isolated care of those who had caught the disease.

In 1882 an epidemic was centered in Brownsville, Texas, where the Service was invited to take charge. A year later an outbreak at Pensacola led to a combined request by the Governor and the local board of health for aid from the Service.[15] Coöperative relations such as these were not, however, always maintained. In 1888 a very severe yellow fever outbreak occurred in Florida and Georgia, especially in and near Jacksonville. Georgia had as yet no state board of health. But the governor was able to invest the Service officers as his legal agents with the authority of state quarantine officers. Florida also had no central health board.

Quarantine power was placed by state law entirely in the hands of the county boards of health. Although the governor requested aid from the Service, the legal inadequacy of his position may be learned from the following description taken from the Surgeon-General's report of 1889 (p. 56):

> Florida was in a state of chaos, all counties and towns were arrayed against one another, no two communities had the same health or quarantine regulations, and such as they had were frequently as unstable and unreliable as the vagaries and fears of the human mind could make. . . . If an inspector pronounced a town or city free from infection, he was fêted and praised as a "scientific expert," but if he should declare the fever to exist in any locality he instantly became an outcast, and was forced to endure privations and hardships in order to get away from that locality. . . . It followed, therefore, that so far as the State of Florida was concerned we could do but little . . . as under the State law the county boards of health had supreme authority. . . .

The difficulties of the 1888 experience led the Service to seek for additional quarantine authority. As a result there was passed two years later the Interstate Quarantine Act of March 27, 1890 (26 U. S. Stat. L. 31). This law empowered the President to proceed as follows:

> . . . when it shall be made to appear . . . that cholera, yellow fever, smallpox, or plague exists in any State or Territory . . . and that there is danger of spread of such disease into other States . . . he is hereby authorized to cause the Secretary of the Treasury to promulgate such rules and regulations as in his judgment may be necessary to prevent the spread of such disease from one State or Territory into another . . . and to employ such inspectors and other persons as may be necessary to execute such regulations to prevent the spread of such disease.

The interstate quarantine powers of the Service were considerably strengthened by this measure. Three years later a more comprehensive statute further strengthened both its interstate and maritime quarantine authority. It was the threat of a future epidemic, rather than, as in most cases,

the actual devastation of a past epidemic that led to this measure.

The Quarantine Act of 1893.—In 1892 Asiatic cholera spread through Europe and a few cases appeared in the port of New York. During the following winter the daily newspapers were filled with opinions by physicians and health officers agreeing upon the seriousness of the danger of a cholera epidemic. Apprehension was greatly increased by reason of the World's Fair to be opened at Chicago in May, 1893. Not only would the inevitable influx of visitors and merchandise increase the peril of disease importation, but if cholera did appear it would lead almost certainly to the financial failure of the Exposition and probably, in consequence, to a serious national financial panic.[16]

The resulting law of February 15, 1893 (27 U. S. Stat. L. 450), although it formally repealed the Act of 1879 creating the National Board of Health, was substantially a revival of the national quarantine authority contained therein. The requirement of a bill of health from each vessel sailing for an American port restored that valuable element in the machinery of international notification. Instead of the limitation of national quarantine regulations to such as conformed to state rules, the national agency was again empowered to set up and to enforce national quarantine regulations wherever it determined that local regulations were insufficient. Although a dual system of quarantine administration was clearly recognized and no great centralization of power was authorized, the statute was clearly an advance over that of 1878. A new and fruitful provision not appearing in the Acts of 1878 or 1879 empowered the federal quarantine agency to purchase at a reasonable price the state or local quarantine equipment whenever it was offered for sale. In the debates over the adoption of the measure states' rights and constitutional objections were again heard. Since Northern seaports were the ones threatened at the time, these arguments came mainly from the South. But

in the shadow of impending danger "the solid and substantial fact triumphed over a thin and almost obsolete theory." [17]

Soon after the passage of the Act a board of Marine Hospital Service officers was summoned to prepare a set of uniform national quarantine regulations. Following the precedent of 1879 the state and local quarantine officers of the Atlantic and Gulf ports were called into a two days' conference, after the preliminary code had been drawn up, to suggest criticisms and revisions. The final code of regulations, which under the law they might be deputized as national officers to enforce, was as a result partially their own product and was therefore well received.[18]

Interstate Quarantine Difficulties.—The proximate results of the 1893 Act were none too encouraging. It is true that the Asiatic cholera epidemic which had been its principal occasion did not invade our shores; the new organization may possibly have been partially responsible for that good fortune. But with Havana and the Central American ports as an immediate source of the annual importation of yellow fever to Southern shores, the improved organization was unable to prevent occasional dangerous outbreaks of this disease. The Service with its augmented powers proceeded to take vigorous action at once by condemning and taking over permanently the Brunswick, Georgia, quarantine on account of local inefficiency in allowing infected persons to land. Without invitation it established a sanitary cordon around that city.

But in 1897 when a severe yellow fever outbreak appeared again in the South, invading nine states and forty localities with a total of 4,325 cases resulting in 484 deaths, the weakness of a duplicate quarantine system became evident. The state officials of Louisiana and Mississippi, where the epidemic centered, refused to coöperate with the national officials and accused them of being responsible for the introduction of the disease.[19] Despite this opposition, the national officers were able to institute train and vessel inspec-

tion and detention camps. But the experience of the summer led the Service to seek further legislation. Surgeon-General Wyman in an address at the time reviewed the defects of quarantine administration under the 1893 law as follows:

First, the provision which requires a demonstration of inefficiency before the National Government shall take control has a fatal effect, because a demonstration of inefficiency involves too much danger. Ordinarily the failure to enforce the national regulations is only demonstrated by some marked occurrence, which is dangerous in the extreme. For example, at one quarantine station, where the President has taken action under the law of 1893, the first demonstration of inefficient administration was the permitting of the landing of a large number of immigrants who had been exposed to cholera, and had actually conveyed cholera to a port on the way to the United States.

. . . Another unfortunate feature of the present law is that the Government is obliged to aid in the execution and enforcement of such quarantine regulations as may be promulgated by the States and municipalities. Occasionally some very foolish and useless regulations are thus promulgated which it would be obvious folly to assist in executing. . . .

It does provide that when a vessel has been disinfected it may be admitted to enter any port named in the quarantine certificate, but the number of vessels thus disinfected is comparatively few compared with those inspected.

At or near one of the principal seaports where there is adequate national quarantine the municipality thus protected has established another quarantine station nearer the city, where it goes through the form of reinspecting, and charging from vessels which have already been passed upon by the national officers and there is no law to prevent this. . . .[20]

The reasons for most of these difficulties are further revealed in the 1896 report of the Surgeon-General (p. 960):

Government quarantines are maintained without a tax upon shipping. . . . Local quarantine, in a number of instances, has been the pretext for an undue taxation upon shipping for the sake of revenue far in excess of what is necessary for maintaining the quarantine establishment, and devoted to purposes quite foreign to shipping, such as paving of streets of cities, the payment of excessive salaries as a reward for local political service, so that this measure, so

necessary to the protection of the whole people and which should be conducted on scientific principles—for quarantine is now a science—has too frequently degenerated into a pretext for the collection of funds devoted to extraneous matters. There are quarantines for protection and there are quarantines for revenue. As has been previously stated, this latter feature does not attach to the national service. . . .*

The disputes of the period reached the halls of Congress. Sponsors of the Marine Hospital Service introduced in the 1898 session (55th Cong. 2nd Sess.) a measure (S. 2680 in Senate, H. R. 4363 in House) designed to remedy the defects as revealed in the 1897 epidemic. This bill would have extended interstate quarantine power by empowering the Service to enter a state directly to control a local epidemic with the object of preventing it from spreading to other states. It would also have removed the necessity of proving the inefficiency of local quarantine arrangements before superseding them in time of epidemic with uniform federal regulations and machinery. Finally, it would have required the state and local authorities to recognize national inspection certificates in this way avoiding duplicate inspection of shipping. The Southern opponents of the national bureau were active also. Two conventions were held resulting in the drawing up of a bill which provided for the establish-

* The report cited the instance of the Philadelphia quarantine plant then maintained alongside the national station: "Fees are collected for this inspection in Philadelphia, and the chief quarantine officer of the State received, I am informed, a salary of $5,000 per annum, and has two assistants, each with a large salary. The State board has no apparatus for disinfection."

The same report complains that when the national government points out defects in local quarantines there is great tardiness of remedial action. "Moreover, through the fear of national quarantine, and the consequent loss of the revenue from local quarantine taxation, direct antagonism has at times developed against the national authority. It requires no argument to show that in a clash of authority there is great danger of inefficient administration. State and local authorities have resented the discovery of inefficient quarantine methods, or lack of proper appliance, and occasionally, therefore, to bolster their own weakness, have indulged in attacks upon the national quarantine."

ment of a separate bureau of health to have charge of quarantine, but with national quarantine regulations made by a board of twenty-two members chosen one from each of the maritime states. Neither of the bills passed Congress.[21]

After this episode time worked to the advantage of the national government. The Spanish War suddenly brought about both the discovery of the means of transmission of yellow fever and the long-sought sanitary regeneration of Cuba. The danger of importation now became less, and quarantine measures became more effective. Annual epidemics ceased. Not until 1905 did the disease appear again in dangerous form at the American ports. When it was discovered in that year at New Orleans, this most uncoöperative of all the Southern localities, after a short period of hesitation, invited the federal authorities to take charge of the campaign, giving them its heartiest support. This was the last occasion when yellow fever was present as a serious problem of land or interstate quarantine.

The Plague in American Seaports.—As yellow fever receded from our shores another dreaded epidemic, the plague (especially bubonic plague), long a menace to western Europe, was imported from India to China, thence to Japan, and began to appear as a danger on the Western horizon. In 1894 the Surgeon-General's annual report noted its appearance as a new disease menace. In 1897 a plague-infected vessel was received and treated at the United States Quarantine at San Francisco. Not until 1900, however, did it appear inside the vigilant maritime quarantine defenses. On March 6th of that year a case of human plague appeared in San Francisco.

Dr. Kinyuon, a thoroughly competent and experienced scientist in charge of the federal quarantine, was one of those to make the first diagnosis of plague. He immediately urged the city and state officials to institute vigorous measures of suppression and quarantine. The federal government under the 1890 law had power to interpose interstate

quarantine. But in order to keep the disease from spreading it was more important to engage in vigorous measures of local sanitation, especially in an anti-rat campaign. This could not be done without local coöperation. And from the first the Service officers, with the officials of the San Francisco board of health as allies, were engaged in a bitter and exciting struggle against the political and commercial interests of the city and state who seemed mainly desirous of avoiding the material injury resulting from quarantine, and were willing to deny entirely the existence of plague in the city and to seek to discredit by every means possible the Service officers.

The story is vividly told in a long series of telegrams appearing in the 1900 (pp. 530-605) and 1901 (pp. 491-578) reports of the Surgeon-General. The governor of the state, most virulent in opposition, charged Dr. Kinyuon with inoculating dead bodies with imported plague bacilli. After the most trying opposition of this sort the Treasury Department obtained the consent of the state authorities to the appointment of three bacteriologists of national reputation and with no previous connection with the federal or state government services to determine whether plague existed or not.[22] In 1901 they made their report confirming the original conclusions of the Service. The opposition of the state board and the governor continued. The health authorities of the other states apprehensive of its transmission across their borders requested a plague conference at which they condemned the state and city authorities and praised the Service officers and city health board. Finally the Service was given charge of plague-elimination activities in the city, and through a coöperative agreement with the state and city authorities was allowed to exercise the local police power. A vigorous campaign was carried on under the direction of Dr. Rupert Blue of the Health Service until April, 1905, when the plague had died out.

Shortly thereafter occurred the San Francisco earthquake

and fire. In 1907 the plague reappeared in that city. Evidently the Western port had now learned its lesson. In less than a month the mayor called the federal Service in to take charge. A citizens' organization raised large funds for the campaign. The state, the city officials, and the press gave full coöperation. In contrast to the earlier attitude, Dr. Blue and his associates were presented with gold watches as tokens of appreciation when the campaign closed in 1909.

In other seaports the plague appeared from time to time: Seattle in 1907; New Orleans first from 1914 to 1918 and again in 1920 and 1924; Pensacola, Galveston, and Beaumont, Texas, in 1920; Oakland and San Francisco Bay cities in 1924, and Los Angeles in 1925. In all cases the federal Service was promptly called in to conduct the anti-plague campaign.* Such a campaign always involves the using of local police powers. The city is usually divided into districts, rats are attacked in each district by rat catchers and rat poisons, and are starved through the careful protection of garbage. An examination is made of the rat population through rat autopsies at a laboratory devoted entirely to this purpose. New building regulations are enacted requiring the rat-proofing of wharves and warehouses. The ultimate object is the elimination of rat contact between shore and vessels and the destruction of the rat population. This requires a long campaign and in the end the responsibility for its continuation must be assumed by the local health agencies.

Maritime quarantine with ship sanitation and careful notification and inspection of vessels is an important element in preventing the importation of the plague, but it would seem

* Exception to this statement must be made in the case of the 1925 pneumonia plague outbreak in Los Angeles, where there was several months' delay in requesting the Public Health Service to take charge and where the municipal council refused to pass the amendments to the building code requiring proper rat-proofing. See *Transactions of the Twenty-third (1925) Annual Conference of State and Territorial Health Officers with the United States Public Health Service,* Washington, 1926, p. 4, and also, *Report of the Surgeon-General of the Public Health Service,* 1926, pp. 71-86.

that in practice effective quarantine at national borders requires special municipal sanitary measures and vigorous suppressive campaigns at ports where it eludes quarantine inspection. From a realistic viewpoint this is properly a part of the federal task of protection against foreign invasion of communicable diseases. As yet, however, national law does not provide for it and, as in the earlier cases of yellow fever, there is always the possibility for a repetition of the almost criminal local inefficiency which was exhibited in the San Francisco episode. Whether such a possibility has now become sufficiently remote through the growth of the opposite tradition is a rather difficult question to answer.

The Unification of Quarantine Administration.—Although the opposition in San Francisco came partially from state health officers, there was no conflict over maritime quarantine authority. A short time before the plague outbreak the national government had come into complete possession of the quarantine station at that port. Other ports during the same period were gradually relinquishing their control of shipping to the national agencies. State and local commercial and political bodies, perceiving the unwisdom of the duplication of quarantine and inspection, brought pressure on the local health authorities to give up their prerogatives. The national officers were in a position to gain the confidence of the public. With a widely organized system of disease intelligence and more adequate equipment, with a staff of professional experts on nonpolitical and permanent tenure, they were competing for public favor with individual, scattered state and local systems often manned by partisan appointees on brief and insecure tenure.

The law of 1893, while providing for governmental purchase, required first the voluntary action of state officers supplemented by state legislative action and then a special appropriation by Congress. We have noted that the Brunswick, Georgia, station was taken in charge by reason of its local default in 1894. It was finally sold to the federal gov-

ernment in 1903. Before 1906 a few other states and cities had transferred their property and relinquished their control to the national Service: San Francisco just before 1900; Florida and Portland (Maine) in 1903; New Jersey's one station at Perth Amboy, and the Oregon stations in 1905. The 1905 yellow fever epidemic in the Gulf ports, although handled successfully, led to considerable confusion through national and state duplication of maritime quarantine. At its end a conference of governors and other representatives of the Southern states met at Chattanooga and in a chastened spirit memorialized Congress to pass a statute placing exclusive maritime and border quarantine in the hands of the national government.[23] President Roosevelt gave the matter more prominence by recommending in his annual message of that year a "proper national quarantine law."[24]

The result of the agitation was an Act of Congress passed June 19, 1906 (34 U. S. Stat. L. 299), appropriating one-half million dollars as a lump sum for purchase of quarantines at the discretion of the Treasury Department. The result was an acceleration of the process of voluntary acquisition. By 1912 the federal government had come into possession of all the important coast stations except at the four ports of New York, Boston, Baltimore, and Galveston. After refusing once to sell the Galveston property the Texas legislature finally disposed of it in 1916, although retaining until even later some of the smaller Texas stations.[25] After the lump sum appropriation was exhausted in 1912, the remaining stations were purchased by special Congressional appropriations, a procedure which always involved delay. The Boston station was purchased in 1917; Baltimore was leased to the federal administration in 1918 and finally purchased in 1921. Last to hold out was the port of New York; it was finally turned over in 1921. For several years before this, however, the New York quarantine had been administered by a Public Health Service officer on detail to the state.

Thus approximately thirty years after the passage of the

law providing for acquisition the national government had by competition, persuasion, and purchase come into possession of the entire maritime quarantine system. In the case of some of the transfers, such as New York, there was a valuable addition to the national quarantine equipment. In other cases the equipment was small, poorly located, and obsolescent. In some instances the transfer represented little more than good will. Narrowly considered, the method of purchase was probably wasteful. In view of the twentieth-century knowledge of epidemic diseases and their means of transmission it was necessary to reconstruct, and in some cases relocate, many of the stations. This gradual reconstruction, however, was as necessary for the original federal equipment as that taken over from the states. At any rate, the material saving by the avoidance of duplication has been considerable.

The Present Quarantine System.—The principal task of the unified foreign and interstate quarantine continues to be the prevention of the importation of the great epidemic diseases. From time to time the particular diseases to be faced have changed in degree of seriousness. The old annual threat of yellow fever has declined, no invasion having occurred since 1905. Vigilance, however, is still necessary each summer season along the South Atlantic and Gulf ports. Cholera, long a menace to the North Atlantic ports and more recently—with the growth of the Oriental trade—to the Pacific ports as well, has not invaded the country for nearly a half century. This is due partly to the development of an excellent maritime quarantine technique for its detection. In 1911 there was a European cholera epidemic of a menacing character accompanied by a large flow of immigrants from the infected districts. With experience gained in the Philippines the Public Health Service put into practice at the large ports of entry a system of individual, bacteriological examination of immigrants for the detection of cholera carriers even when in good health. Without inter-

rupting the flow of commerce or of immigration it was able to keep out the epidemic. Beginning in 1900, bubonic plague has been a constant danger to the Pacific and Gulf ports. Here again the federal quarantine organization has developed vigorous, intelligent measures of detection and prevention. The last of the historic quartet of epidemic diseases, smallpox, has not called for energetic national action. The National Board of Health maintained an elaborate system of interstate notification in the days when immigrants were moving rapidly from the Eastern ports to the Middle West, carrying imported smallpox with them. Occasionally since that time there has been a border quarantine against smallpox from Canada and some federal assistance to localities where the epidemic was raging. But for the most part the disease has been adequately met by the state sanitary authorities. During recent years a fifth epidemic disease, typhus, has threatened to invade the United States from across the Mexican border, and, since the World War, from Europe. Here again the national agency has invented and put into successful practice radical individual disinfection through a delousing procedure which has kept the disease from gaining a foothold in this country.

In 1916 polyomelitis (infantile paralysis) with a probable domestic origin raged as an epidemic through the summer, reaching thirty states with a total of 30,000 cases. The novelty and severity of the disease led to a revival by some localities of the old "shotgun quarantine." The Public Health Service, adopting interstate quarantine methods used for yellow fever, attempted to obtain the coöperation of the states in honoring health certificates issued by proper authorities for children under sixteen who were obliged to take an interstate journey. One important state declined to participate in this arrangement during the severe period of the epidemic; again the weaknesses of federal power when faced by local opposition was revealed. In the 1918-19 pandemic of influenza, because of its nature

and the state of knowledge concerning it, there was no opportunity for drastic interstate quarantine methods. Although the federal health officials were able to offer some central direction to the distribution of medical and nursing personnel, the localization of the disease was an impossibility.

The acquisition of island possessions in the tropics since 1898 has added federal quarantine stations in places where the importable epidemic and other exotic diseases are found and fought close at hand. The Public Health Service has medical inspectors stationed at strategic seaports and disease centers all over the world. Through experience gained at these ports as well as that obtained elsewhere, the Service quarantine establishment and personnel have become as well equipped for the quarantine of commerce as those of any other nation. This branch of the national health service more than any other, perhaps, has the advantages of good tradition and a resulting high morale. A foreign estimate will suffice to indicate its excellent reputation:

> The quarantine organization for the prevention of the introduction into the United States and its dependencies of disease from overseas and its spread from State to State must, in my opinion, be admitted to be the best conceived and most complete in the world. It exemplifies the most logical applications of the principles of quarantine. (From a special report based upon an international survey, to the Commonwealth Parliament by an Australian health official, Dr. W. P. Morris.) [26]

Pan-American Organization and Quarantine.—National quarantine, no matter how efficient, reaches limits in its ability to reduce the liability of disease importation. In the days when yellow fever was entering the South each year from the disease-ridden ports of Havana and Vera Cruz there was an immediate object lesson in the truth that disease transmitted through international commerce requires international action, or, at least, coöperation for the most complete and economical attack upon it—*i.e.*, at its foci of

infection. As early as 1876 Surgeon-General Woodworth set forth clearly the international character of a national quarantine program. Five years later the National Board of Health, through the convening of the International Sanitary Congress of Washington, attempted unsuccessfully to obtain a system of international disease notification as advocated by Dr. Woodworth. Yellow fever turned the attention of succeeding federal quarantine authorities to the wisdom of Pan-American, rather than general, international coöperation.

As early as the Panama Conference of 1826 there were meetings of the American republics to discuss general political questions. These meetings became definitely organized at what was called the First International Conference of American States held at Washington in 1889, with every American republic represented. Among other things, the conference considered the subject of ships and quarantine. Out of the conferences grew the Bureau of American Republics at Washington, later called the Pan-American Union. Medical men were invited to attend the second conference at Mexico City, 1901-02. The subject of international sanitation was discussed, with the result that the delegates recommended the establishment of a Pan-American sanitary conference and sanitary bureau.[27]

The sanitary conference thus called into being was convened a year later, passed resolutions favoring establishment of treaties for the interchange of notification regarding the quarantinable diseases (yellow fever, typhus, and cholera), and created the Pan-American Sanitary Bureau consisting of five members (later enlarged to seven) to be elected by the periodic sanitary conferences and to be located at Washington in connection with the Pan-American Union. The second Pan-American sanitary conference held in 1905 at Washington drew up a sanitary treaty binding the signatories to mutual notification in all cases of the existence of

epidemic diseases.* At the conference convened at Havana in 1924 a revised and complete Pan-American sanitary treaty was signed. This treaty, or code, represents a notable recognition of the principle of international coöperation with regard to the major epidemic diseases.† The United States adopted it February 24, 1925.

* Successive sanitary conferences have been held practically every two years at the following places: 3rd, Mexico City, 1907; 4th, San José, Costa Rica, 1909; 5th, Santiago, Chile, 1911; 6th, Montevidio, Uruguay, 1920; 7th, Havana, Cuba, 1924; 8th to be held in 1927 at Santiago, Chile. Another Pan-American sanitary conference came into being in Washington in 1926. It is made up of the national directors of public health of the American republics. The Washington meeting made recommendations to the next sanitary conference and effected a permanent organization with an arrangement for future meetings to be held at five-year periods.

† It provides for (1) mutual notification and periodic disease reports to all signatory countries with immediate notification of plague, cholera, yellow fever, smallpox, and typhus to the signatories and also the Pan-American Sanitary Bureau. (2) Each country places itself by the treaty under obligation to put into effect sanitary measures to suppress the epidemic and to publish for the information of other nations the measures instituted. (3) Each country agrees to establish a central bureau of vital statistics and to use in the exchange of mortality and morbidity reports the International Classification of the Causes of Death, thereby adopted as the Pan-American classification. (4) Provision is made for permission to foreign medical officers or consuls to issue standard bills of health to vessels sailing from the ports of the signatories and the signatories agree to facilitate this task by furnishing adequate disease information to such medical officers. (5) Each vessel sailing under these regulations is required to keep a prescribed sanitary record of the voyage. (6) The various ports of the Western Hemisphere are required to be classified, such classification to be made by the Pan-American Sanitary Bureau, into infected ports, suspected ports, and clean ports, class A and B. Class A is one in which there is no case of resident epidemic, communicable disease and in which there are adequate quarantine and public health equipment and organization as defined in some detail by the code. Class B is one in which some of the sanitary requirements are not fulfilled but which is free from epidemic diseases. (7) Standards are prescribed in some detail for the fumigation and treatment of vessels. (8) The Pan-American Sanitary Bureau is made the central coördinating agency of the various member republics and is in charge of the collection and distribution of disease and sanitary information. A fund of not less than $50,000 is collected

There has thus been created for the Americas an advanced international agreement for combating epidemic diseases with a well-organized international agency to act as a central clearing house of information. In this movement for coöperation the United States has taken a leading part and will probably continue to consider such types of regional organization the most vital for its protection against imported diseases.

European International Sanitary Organization.—In Europe there has been a gradual development of similar international action. The increase in the volume and rapidity of communication between Asia and Europe and the extension of European control to Asiatic territory during the nineteenth century rendered the Western nations more liable than before to imported Oriental epidemic diseases. It was as if the disease dangers of the Crusades had been made permanent. The opening of the Suez Canal in 1869 and the increase of steam navigation increased the dangers. Recurrent epidemics of cholera were the most notorious. Beginning with 1851 there was held following each outbreak a diplomatic conference of the Powers and other nations.* Great Britain, with her primary interest in shipping, promoted the idea of vigorous international action to attack the disease sources rather than urging stricter national quarantine. Continental nations, on the other hand, relied on intricate national quarantines instead of international administration. General nationalistic jealousies and competing spheres of influence in areas of greatest disease prevalence prevented major agreements.

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by the Pan-American Union for expenses of the Bureau by apportionment among the signatory governments.[28]

* These conferences were held as follows: Paris, 1851 and 1859; Constantinople, 1866; Vienna, 1874; Washington, 1881; Rome, 1885; Venice, 1892; Dresden, 1893; Paris, 1894; Venice, 1897; Paris, 1903; Washington, 1905; Paris, 1912; Paris, 1926. There was also held, beginning in 1852, a periodic International Congress on Hygiene and Demography in which quarantine problems were discussed. It has not been held since the outbreak of the World War.

The United States was represented at these successive conferences. We have seen that in 1881 such a meeting was held in Washington, but without impressive results. At a conference at Rome in 1885 resolutions were passed in favor of international notification of diseases by regular correspondence, by the publication of statistical bulletins from each important city, and by telegraphic reports of cholera and yellow fever outbreaks. This forward step was greatly limited by the failure of Turkey, a strategic country from the disease viewpoint, to sign the convention. The 1892 cholera epidemic was followed by conferences at Paris and Dresden. The Dresden meeting resulted in a convention making international notification of cholera obligatory and setting down maximum quarantine and fumigation requirements. The meeting at Paris dealt especially with the spread of cholera from Asia to Europe as a result of pilgrimages to Mecca. In 1891, through Great Britain's initiative, the Sanitary, Maritime and Quarantine Council of Egypt, a sort of international agency representing the principal Powers, had been created as a guard against diseases coming from Asia. The Paris conference provided legislation for its activities and stipulated international quarantine measures for ships passing through the Suez Canal.

The next important conference was that of Paris in 1903. This meeting dealt more fully with the international sanitary councils in backward ports such as that in Egypt. As early as 1838 the Powers had set up a Superior Sanitary Council at Constantinople, made up of representatives of the maritime Powers and Turkey, with the object of the sanitary regulation of Turkish ports. Other councils, similar in object and composition, were created later at Teheran, Persia, and Tangiers, Morocco. The 1903 Paris conference elaborated the system of regulations for the Suez Canal, the Persian Gulf, and for the pilgrim traffic, to be carried out by these councils. Their organization was defined, costs were allocated, and penalties for infringements of regula-

tions were made an international offense. This excellent machinery was considerably impaired in its operation by rival imperialistic intrigues. Turkey at the outbreak of the war in 1914 repudiated entirely the councils' jurisdiction. The Paris conference also drew up a general sanitary code of regulations regarding plague and cholera. It provided for the obligatory notification of these diseases among signatory states, the definition of articles subject to disinfection, and prescribed measures of quarantine for infected ships with a maximum time limit for detention.[29]

Article 181 of the 1903 convention provided for an International Office of Public Hygiene which was set up in Paris in 1907 despite the refusal of Germany and Austria to join it. The new health bureau was governed by a Permanent Committee composed of the professional sanitary representatives of the various national states adhering to it, with a director and secretary-general appointed by the Committee for a three-year term. The Office was empowered to provide central information on health matters, to issue a monthly bulletin of public health statistics, to correspond directly with the Sanitary Councils in the Mediterranean area, and to propose modifications of the sanitary treaties. The meetings of the Permanent Committee held twice a year were themselves, for all practical purposes, sanitary congresses. The United States adhered to the Paris Convention of 1903, including membership in the Paris Office, but made certain reservations regarding methods of treating infected vessels. The Paris Office failed to fulfill the high function given to it: two important European Powers were not included in its membership and only the United States and Brazil outside of Europe were members. The French government chose for its head a retired diplomat instead of a sanitary expert, and the national contributions for its support were insufficient.[30]

In 1912, also at Paris, another sanitary conference was held at which the 1903 sanitary code was revised. Although

it was an improvement over the former treaty, the United States ratified it with reservations, criticizing the narrowness of its scope and its failure to keep pace with advanced methods for prevention of the transmission of cholera and plague. The signing by other nations was delayed by the war. Surgeon-General Cumming has stated that all of these conferences were dominated by European ideas, interests, and fears, rather than by a truly international outlook upon sanitary problems.[31]

The League of Nations Health Organization.—At the end of the World War the European states were faced with a grave sanitary emergency in the form of the Russian typhus epidemic, which, with revived immigration and returning soldiers, threatened to spread westward—even across the Atlantic. Rather than to utilize the Paris Bureau, which did not represent the nations most seriously involved, the newly organized League of Nations took the initiative in sending an advisory commission to Poland to assist in anti-typhus work. The member nations all contributed funds for the campaign. In 1920 a general all-European typhus conference, which included non-League states such as Turkey and Bulgaria, was called at Warsaw by the government of Poland. The League sent a group of expert secretaries to conduct the conference. Out of the meeting grew the health organization of the League of Nations. Articles 23-25 of the League Covenant had made provision for the transfer of the Paris Health Office to Geneva to form the principal League health agency. In June, 1919, the way seemed clear for this action by the resolution of the Permanent Committee of the Health Office in favor of placing its organization under the League. The Council of the League in April, 1920, made definite proposals for the transfer which were ratified by the League Assembly in December of that year. Meanwhile the United States had refused to enter the League and together with France, at a later meeting of the Permanent Committee in April, 1921, at which it reconsidered

the previous action, definitely blocked the proposals for unification. The League Council then proceeded (June 22, 1921) to appoint a Provisional Health Committee composed of twelve technical health experts chosen without regard to national representation, and to organize a Health Section as one of the dozen or more main divisions of the League secretariat.[32]

Since both Committee and Section were evidently a duplication of the organization of the International Office of Hygiene at Paris, negotiations were continued with the view to working out a plan of coöperation between the two. This was finally accomplished in January, 1923. Although the International Office remains at Paris, its Permanent Committee has become the Consultative Committee of the League's Permanent Health Organization. The League's Provisional Health Committee of experts is replaced by the Permanent Health Committee of the League. This latter Committee is composed of ten members (nine members and its chairman) chosen by the Permanent Committee of the Paris Office to serve for three years, and six members chosen by the Council of the League in the same way that the members of its Provisional Health Committee were selected (the Council may add four members more if it chooses to do so). The Health Section and secretariat of the Paris Office are both continued. A division of work between them has, however, been attempted.[33]

Since its organization as an outgrowth of the Polish Typhus Commission the Health Section has shown a great deal of vitality. A Service of Epidemiological Intelligence and Public Health Statistics, in active operation, issues weekly epidemiological reports on disease prevalence, special reports when epidemics threaten, monthly reports, and annual summaries. Studies of national public health and statistical methods are being carried forward; group conferences of statisticians have been held; standardization of certain laboratory products and procedures have been suggested.

The Rockefeller Foundation by generous financial gifts to its work, especially for interchanges of national health officers, has more than compensated for the absence of the United States from its official support. Its epidemiological investigations in the Near East in 1922 were mainly responsible for the calling of another international sanitary conference in May, 1926, to revise the Paris Convention of 1912.[34] At this conference, held again in Paris, there were representatives from more than sixty governments, including many that were not present in 1912. The quarantine regulations were overhauled and some improvements made. But on account of certain inadequacies of the treaty the delegates of the United States were obliged to sign with reservations. There was prolonged discussion during the six weeks' session as to the proper spheres of the League and Paris Office in international health organization. It was reported by Surgeon-General Cumming that there resulted a decision to energize the Paris Office and to give it charge of current epidemiological and statistical work, leaving scientific investigations to the League agency.[35] It is not clear that this has actually been done. It seems unfortunate that some method could not have been found for uniting both agencies under the more representative organization at Geneva without offending the *amour propre* of the two or three non-League states.

Neither the European nor the world agency, however, duplicates or makes unnecessary the Pan-American Sanitary Bureau. The League has, on the other hand, set on foot plans for the development in other parts of the world of conferences and centers of information to deal with regional and special disease problems. In 1925 an epidemiological service was established for the Orient at Singapore. Likewise, proposals have been initiated for regional action in the Eastern Mediterranean, Equatorial Africa, and the Danubian States. In its national quarantine administration the United States will undoubtedly find all these organs ex-

tremely useful. It is hoped that it will be able to maintain its traditional policy of leadership in promoting the intelligent coöperation of national governments for the elimination of importable epidemic diseases at the sources of infection. Such international action is bound to be an increasingly important factor in the future success of any national effort to prevent the spread of epidemic disease borne in on the highways of commerce.

Summary.—The history of American quarantine against epidemic diseases might be summed up as a gradual but consistent evolution from individual seaport control to national, and even international, administration. The method by which such centralization has gone forward is an interesting, instructive example of coöperative federalism. By a slow process, a painfully slow process, with laws passed usually as the sequel to costly epidemics, the Public Health Service has won for itself a practical administrative monopoly in combating yellow fever, cholera, the plague, and typhus at the national borders.

Very little of the central quarantine authority rests upon legislative grants of regulatory power enforced by the courts against state and local opposition. It is doubtful whether Congress has yet used to the fullest the national constitutional power over foreign and interstate commerce for quarantine purposes. The federal monopoly of maritime quarantine is derived rather from the voluntary consent of the states. One might say that it rests upon the widespread confidence of the seaport localities, born of actual experience, that the national health service is to be trusted to give better protection against diseases carried in by ships than any they could or would provide for themselves.

The federal authority for fighting the imported epidemics at the second line of defense—*i.e.*, after they have gained an initial foothold in the seaports—rests upon foundations legally more precarious. As each situation arises the national officials win the right to conduct the local suppressive

campaign only by specific local abdication of leadership in their favor. At any time under the present law another San Francisco episode might occur with even greater disaster to the nation as a whole. But, after all, San Francisco had its lesson and the primacy of the federal quarantine bureau, although won with the greatest difficulty, seems to rest upon the practical basis of acknowledged superiority in experience and technique. It is this way, if at all, that international agencies are likely gradually to augment or replace national organizations in the quarantine field.

It would be fatuous to assume that the painful history of administrative evolution, especially the rate of evolution, represents the ideal method of federal growth. The record, especially the *Record,* is only too full of legal stupidity and blindness, of disingenuous assertion of the empty formulæ of state and local rights in the face of superior and more efficient national performance. Still there is a resulting soundness, wisdom, and economy in a centralized organization of quarantine which has attained its unification without sacrificing the merits of local consent, coördination, or coöperation. It would seem to be a clear advantage if federal quarantine law should enable national officers in case of crisis to take charge of epidemics at once, without waiting to wear down ignorant or selfish local opposition. At these times something like military unity and speed of action are required. But such grants of increased legal power would represent a net gain only if they were kept as a gun behind the door and in their place the technique of coöperation and persuasion used as assiduously by federal officials as it is now of necessity employed.

CHAPTER XII

NATIONAL HEALTH REGULATIONS OF COMMERCE

Although national quarantine as described in the preceding chapter was developed primarily as an instrument for combating the great epidemic diseases of foreign origin, it is but natural that similar federal supervision should be directed against diseases neither epidemic nor exotic. Thus we find in the regulations from time to time additions to the original quarantinable diseases—yellow fever, cholera, smallpox, plague, and typhus—so that they now include many communicable diseases not usually epidemic, but sufficiently dangerous in persons to justify special precautions.

Regulation of Travel of Diseased Persons.—For certain diseases maritime quarantine is provided in the form of segregation if discovered on shipboard and hospital isolation at the American port until cured. They are poliomyelitis (infantile paralysis), diphtheria, cerebro-spinal meningitis, influenza, scarlet fever, measles, and chicken pox. Interstate travel also is forbidden to persons with these and the following diseases: pneumonia, typhoid, paratyphoid, dysentery, epidemic encephalitis, septic sore throat, and rubella. In the case of certain chronic communicable diseases such as tuberculosis, leprosy, syphilis, and gonorrhœa, the simple devices of prohibition of travel and isolation at ports are not suitable. Travel in interstate commerce and landing from shipboard are permitted persons with these diseases, but only under stringent regulations. Before taking an interstate journey a patient must obtain a permit from the

health authorities of the state which he wishes to leave and of the state to which he wishes to go. He must in addition make provision for proper isolation and nursing, with the regular sick-room precautions applicable to the particular disease, during his entire journey. The regulations likewise require satisfactory terminal disinfection of the quarters occupied by the patient *en route*.*

The adequate and continuous enforcement of the travel regulations as applied to foreign commerce is provided by the regular quarantine machinery and personnel at the ports. For interstate commerce there is no regular federal machinery or personnel either of inspection or of enforcement. Instead, the state health officials, by the system of permits, enforce the federal regulations as far as they have cognizance and control of prospective travelers afflicted with the quarantinable diseases. Since interstate travel is usually of comparatively small importance in their dissemination, the erection of special national machinery for carrying out the regulations would be an extravagance. If at any time interstate travel becomes an important factor, federal personnel and inspection machinery for the purpose can readily be provided.

Medical Inspection of Immigrants.—The regular national maritime quarantine is applied with unusual thoroughness in the case of alien immigrants. Those emigrating from areas in which there are epidemics of typhus, cholera, or plague are given individual examination or disinfection before sailing for the United States as well as inspection when they arrive at our borders. In the case of all aliens quarantine against communicable diseases is augmented by immigration laws and regulations which are both arbitrary in

* In the case of citizens of the United States afflicted with leprosy, permission to land or to travel in interstate commerce must be obtained from the Surgeon-General of the Public Health Service as well as from state authorities. Immigration regulations provide for complete exclusion of aliens with this chronic disease.

penalty and broadly applicable to other than quarantinable diseases and to physical defects of all kinds.

Beginning in 1882, a series of laws has been enacted for the selection and restriction of immigrants. In that year an Act excluded, among others, lunatics, idiots, and persons likely to become a public charge (22 U. S. Stat. L. 214). Nine years later the disqualified groups were increased by adding "those suffering from a loathsome or contagious disease" (26 U. S. Stat. L. 1084). From time to time definitions have been modified and additions to the excluded classes have been made. Under the present law (43 U. S. Stat. L. 153), which in these features retains the provisions of the Act of 1917 (39 U. S. Stat. L. 874)—itself a codification of previous laws—the aliens disqualified for physical and mental defects are as follows:

(1) Idiots, imbeciles, *feeble-minded* persons.
(1) *Insane* persons, those having in the past suffered attacks of insanity, persons of constitutional psychopathic inferiority.
(3) Persons with *tuberculosis* in any form, epilepsy, or with a *loathsome or dangerous contagious disease.*
(4) Persons with a *physical defect* of such a nature as probably to *affect their ability to earn a living.*

Roughly stated, the excluded persons may be termed the feeble-minded, the insane, disabled cripples, and those with serious, chronic communicable diseases. The diseases covered under the various headings are leprosy, venereal diseases, tuberculosis, mental diseases, and trachoma, as well as several rarer ailments. With the exception of trachoma these are quarantinable diseases as well. The practical difference is that aliens discovered with such diseases are excluded absolutely, whereas citizens are admitted after the expiration of quarantine or under travel regulations.

Foreign quarantine and immigration have from the first had different administrative machinery. The 1882 Act, under which mental defects only were ground for exclu-

sion, was enforced by the regular immigration authorities except at the port of New York. There the mental examinations were assigned by a contract to state administrative experts. At that time it will be remembered that quarantine also at New York was under state control. The Act of 1891, which for the first time excluded those with contagious and loathsome diseases, assigned the task of physical examination to the officers of the Marine Hospital Service. Since the Immigration Service was then located in the Treasury Department an intradepartmental arrangement was readily made whereby the Marine Hospital Service officers were detailed to the sister Service to perform this work. Although in 1903 the Bureau of Immigration was transferred to the Department of Commerce and Labor and in 1912 to the Department of Labor, coöperation seems to have been maintained with a fair degree of satisfaction.*

There is much physical proximity in the administration of

* At recent Congressional hearings criticism was made that large numbers of aliens certified as excludable upon medical examination are actually admitted to the United States. The officers of the Public Health Service indicated that this was so. Under the existing arrangement the work and responsibility of the Health Service officials end when their decision is given as to whether the alien is excludable for a physical or mental defect. The determination as to whether the alien shall actually be sent back or permitted to land is made by the Immigration Service with the previous history and results of the various examinations before it. Against the local decisions of the immigration officer there lies an appeal to the Department of Labor. In all the ports great pressure is brought by friends and relatives of detained aliens to obtain their admission. The decision in individual cases is greatly complicated by the hardships connected with breaking up family units and making judgments regarding the many factors among which physical defects of various grades and seriousness are one. Whether in practice the Immigration Service is nullifying any or all of the provisions of the Act or merely exercising reasonable discretion in interpreting them is impossible to say on the basis of existing evidence. The Service officers, while admitting some dissatisfaction at the liberality in handling cases of exclusion, were not willing to claim that their efforts were being frustrated and pointed out that in many cases such as venereal diseases or other excludable ailments quarantine and treatment serve as perfectly good alternatives to absolute exclusion.

maritime quarantine, care of sick seamen, and immigration inspection. At ports where the number of arriving aliens is small the quarantine officer located there is available for immigration inspection work. Upon occasions of threatened epidemics when the inspection for particular diseases includes careful individual examination of alien passengers (as at San Francisco in the inspection for plague) the quarantine examination is combined with the immigration medical examination. At some places the immigration hospitals for temporary isolation of sick aliens are under the management of the Marine Hospitals Division of the Public Health Service. In practically all cases of excludable diseases discovered at quarantine the immigration officers are notified, and quarantinable diseases discovered at the immigration station are subjected to detention by quarantine before being allowed to land. At the large ports, such as New York City, the immigration medical inspection is carried on as an integral part of the whole task of immigration examination and is quite distinct from the operations of the quarantine station.

The arriving aliens at Ellis Island (New York City) undergo, along with various other inquisitorial procedures, what might be called an expert, superficial medical inspection for physical and mental defects.[1] Within an average space of twenty seconds two medical examiners observe the walking gait, scalp, hands, eyes, mental reactions to questions, and observable physical make-up of all aliens as they appear in line. Thus for the large majority who pass successfully along the lanes at the immigration station and enter the "promised land" there is no complete medical examination at all, as the physician uses the term. About 15 or 20 per cent of the immigrants are turned aside from the main stream as suspects and for them more searching and more leisurely examinations are given. These often include bacteriological tests, a series of mental tests, and an extended period of observation.

Trachoma, favus, apparent physical disabilities, advanced cases of leprosy and of tuberculosis are discovered by the general inspection. But those in charge of the work do not claim that it detects all the diseases or physical defects excludable under the immigration laws. In the case of insanity a supplement to the immigration inspection at the port of entry exists in the deportation clause of the law which provides that any alien committed to an institution for insanity within three years after arrival in the United States may be deported. The law attempts to aid further by imposing a fine upon the steamship companies and requiring them to furnish return passage for all aliens who are excluded at American ports. Although such a provision in the quarantine laws has proved effectual in obtaining voluntary steamship examinations at the port of sailing for quarantinable diseases, it has been unsuccessful in securing similar cooperation in the case of immigration. So is it also with the record of the ship's doctor whose observations of behavior and reports of illness *en route* might be a valuable aid to the examinations at arrival. The vessel is interested in landing all of the aliens it transports and in transporting as many as possible. It is difficult to enlist its agents, therefore, in any scheme for voluntary examination of prospective or actual passengers.[2]

At Congressional hearings in 1921 dissatisfaction was voiced at the incomplete character of the immigration medical examination. The proposal was made that thorough individual physical and mental tests be applied no matter what the increased time or cost.[3] The officers of the Public Health Service testified, however, that the soundest method of improvement would be to add the requirement of thorough examinations at the ports of embarkation before sailing. They pointed out that it is a wasteful process to administer the law so that aliens may sell their property, break up their homes, spend time and money waiting at the European seaports, and travel across the ocean only to be sent home again

for defects that could have been determined before they left. To institute thoroughgoing physical examinations in the ports at the points of embarkation would not only be more humane, but it would also be more efficient. The need for haste would be greatly lessened; there is already an inspection force located in foreign countries for quarantine purposes; and the pressure in favor of permitting a landing, which is very difficult to withstand after the alien has arrived at our ports, would be greatly diminished.[4] Surgeon-General Cumming testified that among experienced consular officials preliminary inspection was practically unanimously held to be the proper way of improving the physical selective process.

The way was opened for this administrative improvement by the Immigration Act of 1924 (43 U. S. Stat. L. 153), which contained a clause authorizing American consular officers to withhold visas from persons ineligible to enter the United States. The Surgeon-General of the Public Health Service entered into a coöperative arrangement with the Department of Labor and the State Department which provided for preliminary medical inspection of aliens in such countries as were willing to have it carried on within their borders. The plan was inaugurated in Great Britain and Ireland August 1, 1925. Since that time it has been extended to Belgium, Holland, Germany, Denmark, Norway, Sweden, France, and Poland.[5] For many years Italy cooperated in permitting the combination of preliminary immigration and quarantine inspection at one or more of her ports. For reasons of domestic politics, evidently not connected with any important difficulty, the Mussolini Government by an order issued in 1919 refused to allow its continuance. Japan has for a long time permitted the Public Health Service to combine immigration inspection with quarantine inspection in her ports. Foreign nations might be expected to have a patriotic interest in not supporting a mechanism which selects the best human material for emigration and prevents the emigration of the defective. On the

other hand, the crowded conditions at Ellis Island have induced a country like Great Britain to attempt to relieve the physical discomforts of its departing subjects. Whether all the other foreign nations will voluntarily permit such an enlightened administrative plan to be operated on their soil too cannot be answered. But if the United States should seek by law to establish it there would be at hand powerful weapons of pressure such as absolute exclusion or reduction of quotas for such countries as refused to coöperate. As time goes on it is quite probable that quarantine and immigration inspection machinery will emphasize thoroughgoing individual medical examinations conducted jointly. If so it is a very favorable fact that both tasks are actually carried on by the Public Health Service officers.

Leprosy Control.—Leprosy has come more immediately and completely into the control of the federal government than the other diseases of its general type. We have already noted that it was originally classed with the epidemic diseases regulated by the Quarantine Act of 1893, although in practice it did not require the same administrative method for its control. It was also included among the diseases excludable as loathsome or contagious under the Immigration Act of 1891. In both interstate and foreign commerce, since it is not epidemic but communicable and chronic in nature, it has been controlled by regulations designed to isolate the individual leper, but to allow for his necessary movements.

Alien lepers under both immigration and quarantine regulations are not allowed to land in the United States and are deported if found here within three years after landing. Citizen lepers coming from foreign countries and lepers in interstate commerce are allowed to travel under the usual regulations applicable to tuberculosis and venereal diseases, with the additional requirement that permits to land or to travel must be obtained from the Surgeon-General of the Public Health Service. It is in the matter of care of lepers

in the United States, however, that novel features of administration have been instituted.

For many years it was popularly thought that this country was practically free from lepers, and that, therefore, they presented no problem of isolation and care. After the Marine Hospital Service was assigned to the medical inspection of alien immigrants in 1890 the collection of statistics regarding excludable diseases began to indicate the existence of leprosy as a factor in immigration and to arouse interest in it as a domestic problem among the officers of the Service. A preliminary Service investigation into its prevalence in the United States led the Surgeon-General in his report for 1894 to make the following summary of the situation (p. 15):

> No State possesses a leper hospital, and on account of the number of patients found in each State it does not seem probable that special hospitals will be erected by the State authorities. On this account it is believed that some local authorities indirectly aid in the spread of this disease by their unwillingness to ferret out and discover cases. Having no place provided for their reception, the temptation is to avoid a decision as to the contagiousness of the disease, and officially to ignore the presence of cases, lest through public clamor they be compelled to remove them. In this manner, especially in large cities, cases of leprosy may be allowed to exist undisturbed. . . .

To meet the evident need for more adequate isolation the Surgeon-General advocated the establishment of a national leper hospital where all such patients should be cared for. The authority for federal control of patients not properly isolated by state and local health authorities, he contended, was present in the 1890 and 1893 Quarantine Acts which justified such procedure as a means of preventing the interstate spread of disease. Under his suggested plan the alternatives to be presented the state authorities were the proper isolation and care of its lepers, the voluntary transfer of them to federal control, or as a last resort their forcible re-

moval to federal jurisdiction under interstate quarantine regulations.

Before making a definite request for legislative authority to construct a leprosarium the Surgeon-General proposed that a commission of three Service officers be appointed to conduct a thorough investigation into the number and distribution of domestic lepers. This was authorized by Congress in 1899 (30 U. S. Stat. L. 976). The commission, after an extensive survey covering every state, reported (Sen. Doc. 269, 57 Cong. 1 Sess.) that there were 278 known lepers distributed in twenty-one states, a little over half of whom had been born in this country. Over 73 per cent of the cases were found to be at large, only about one-fourth of the total, therefore, being properly isolated and cared for by state or local authority. The report, which confirmed the Surgeon-General's earlier description of the situation, adhered also to his proposal for the creation of at least one national leper home which should so far as possible centralize leper care and offer adequate isolation.

Although Hawaii with its famous leper settlement at Molokai, the Philippines, and Porto Rico, each with a numerous leper population, were added to American territory at this time, neither the increased danger of immigrant cases, the warning in the commission's report, nor periodic renewals of the proposal for a leper home in the annual reports of the Service brought any immediate legislative results. A bill to erect a national leprosarium did pass the Senate in 1905 but died in the House. Not until 1917, a quarter of a century after the need had been plainly pointed out, did Congress authorize it by an appropriation law (39 U. S. Stat. L. 872). Meanwhile conditions had not greatly changed. Louisiana during most of the period, and more latterly Massachusetts, had themselves assumed the burden of proper leper isolation and care. The other states had not done so. The Public Health Service after an unsuccessful attempt to secure a separate site at Angel Island, California, purchased

the Louisiana State Lepers' Home at Carville and made it into a national institution.

The federal government has not as yet used drastic measures to force the transfer of all lepers to its control. Rather, by building up superior facilities and personnel for specialized care and treatment and by offering the hope of a possible permanent cure, it has sought to attract to it not only lepers now in state custody, but those as yet undiscovered by the public health authorities. At the present time (1926) there are about 260 patients in the institution, approximately two-fifths of whom are from Louisiana. This is less than a fourth of the 1,200 lepers now estimated to be resident in the United States.[6] Dr. O. E. Denny, previously superintendent of the government leper colony in the Philippines, has been placed in charge of the asylum. The improved chaulmoogra oil treatment is being given the patients and only recently it has been announced that twelve of them have been paroled as cured.

Thus far such a unified national system of hospital isolation and care of a communicable disease has been provided in this one case only. Whether there are others for which similar action would be wise is not yet clear. As an administrative device it is merely extending to a larger area the same logic which in the states has replaced small, undifferentiated, and inexpertly managed county jails, almshouses, and hospitals with specialized and expertly manned state institutions for tuberculosis, epilepsy, feeble-mindedness, and the insane. Where a disease is plainly in need of isolation for adequate care, and where it exists in the country at large in such small numbers as to make state institutions a wasteful duplication of equipment or likely to lead to neglect of the matter by the states altogether, it is plain that the solution worked out for leprosy would be economical and wise. As yet trachoma is the only other communicable disease for which federal hospitalization in this sense has been proposed.

Interstate Water Supplies.—The modern knowledge regarding methods of disease transmission has turned attention away from quarantine and fumigation of miscellaneous articles presumed to have been contaminated with disease and directed it toward the control of the human infective agents and the specific personal objects or utensils which have come into direct contact with them. Certain nonhuman agents are known to be the means of spreading diseases, and over them health agencies have increased their general and continuous sanitary supervision. Of primary importance in this connection are drinking water, meat, milk, perishable and canned foods. Because of their relation to pure water and milk as well as their direct liability to transmit disease, public toilet facilities and the disposal of human wastes have also received special attention. As quarantine or sanitation of commerce has included in its program the attack upon communicable diseases other than the old epidemics, and as travel by train and vessel has become interstate or international in character, the health agencies of the federal government as well as of the states have undertaken the task of their supervision. The extension of federal regulations regarding ships to include matters of general sanitation was quite an early and natural development of the maritime quarantine rules directed against epidemic diseases. Not until recent years, however, did the federal government attempt this sort of health activity in relation to interstate steamer and rail traffic.

Acting under the impetus of an Act of 1912 (37 U. S. Stat. L. 309), which empowered the Public Health Service to make scientific studies of water supplies as well as other causes of human diseases, but using powers over commerce granted in the 1890 and 1893 quarantine laws, the Surgeon-General promulgated a complete sanitary code for railways and vessels engaged in interstate transportation. The most important feature of these regulations was the control of the

drinking water supply.* In addition, however, the code provided for the proper disposal of garbage in dining rooms and dining cars, for the sanitary handling of bedding in sleeping compartments, for the care and cleaning of toilets, for the abolition of the common towel, and for the provision of a separate bowl for the cleaning of teeth. The water supply regulations were set forth in detail. The common drinking cup was prohibited; water containers were to have proper and regular cleansing; water was to be kept separate from ice; sanitary regulations were set down for the filling of containers in the station yards; and all water used in interstate passenger traffic was required to be of a satisfactory degree of purity. Thus the water was to be supervised from its source to the mouth of the passenger-consumer.

Just as in the case of regulations for the travel of diseased persons, rigid enforcement of this code depends upon constant and close inspection. At first the only sort provided was that made incidentally by the Service officers during their travels. For the railway water supply the Service, beginning in 1915, undertook more active supervision. The interstate regulations of 1913 had imposed upon the common carriers the responsibility of furnishing a certificate of purity for each water supply used by it for drinking or culinary purposes. The certificate might be made by a state health official, a local health agency, or a private laboratory. It soon became evident to the Service officials in charge of tabulating and verifying these certificates that such machinery did not maintain any adequate standard of purity. There was great variation in standards. Some certificates proved quite unreliable. To quote from the 1915 report (p. 267):

> In certain cases State and municipal authorities have evidenced a reluctance in certifying to either the purity or the contamination

* The Railway Surgeons' organization and the American Railway Association took an active part in the framing of the sanitary code and have coöperated in its enforcement. Many of the regulations were suggested by the railway officials themselves.

of the supply. In instances of this character, officers have been detailed to make sanitary surveys of such supplies and to determine by bacteriological examination the quality of the water. In the greater number of these cases contamination has been found.

Rather than continue a system which at best gave only a false security the Service decided to launch upon the ambitious and difficult task of direct national certification of all interstate water supplies. Provisional bacteriological standards of pure water were announced by the Surgeon-General and a commission of fifteen experts chosen partly from outside the Service was given the task of revising and confirming these standards. The interstate quarantine regulations were amended to provide that no water should be declared certified unless it conformed to the approved standards. Direct inspection required new administrative machinery. The United States was divided into twelve districts, each with one or more Service officers, mainly sanitary engineers, assigned to it. Laboratories were set up at every district headquarters; samples of the supplies used by the common carriers were collected for bacteriological analysis; as an additional check, surveys of water sources were made; and supplies which by one or both processes were revealed to be polluted were ordered discontinued and placarded at the railway stations as unfit for use.

The size and difficulty of the new task can be seen when it is realized that at practically each important station the railroads have a different water supply source. Altogether these supplies comprise more than half of those of the country as a whole.[7] Sixty per cent of them, moreover, are also public or municipal supplies under local or state health control. Since both the bacteriological count and the sanitary survey were factors in determining the purity of the water supplies, there was abundant room for honest difference of opinion as to the minimum practical standard to apply in particular cases. The Service found that the task was en-

gaging a large amount of its attention and personnel and involving it frequently in direct disagreements with local and state health authorities. It was pushing the work with vigor, however, until America's entrance into the war in 1917 made the continued use of sufficient sanitary personnel for its successful administration temporarily impossible.

When in 1919 opportunity presented itself for renewal of the task of certification, a distinct change in administrative policy was decided upon. Direct federal inspection was given up. Instead of returning to certification at the hands of such agencies as the carriers might select, however, it was determined to have the work done by the state health authorities with such aid and encouragement as the federal Service might offer. It was in effect a plan for gradually building up forty-eight water inspection offices for interstate and intrastate supplies in place of a dozen federal districts duplicating and, in some cases, disagreeing with existing state agencies. Seven districts (later reduced to six) for supervision of interstate sanitary laws were retained each with one or two sanitary engineers assigned to it. These officials still carry on direct inspection of railroad yards and passenger vessels to enforce the interstate sanitary code as well as to help in improving the observance of other interstate sanitary regulations. But the certification of water supplies is now carried on by state divisions of sanitary engineering, of water supply control, or of communicable diseases.

Such divisions, with facilities suitable for the federal work, did not exist in all the states when the new plan was brought into operation. It has been the aim of the Service to help in building them up by the offer of personnel and financial aid.[8] Where the state departments have lacked the personnel or organization for the work, federal sanitary engineers have been detailed to them to improve the sanitary engineering activities and to put the water certification system on its feet. In 1920 there were eleven states receiv-

ing aid in this form. The officers thus detailed have withdrawn as rapidly as possible, leaving the state to continue the operation of the machinery thus set in motion. In other states with appropriations insufficient for the purpose the federal government has appointed state officials at a nominal salary to act as its collaborating sanitary engineers. These officials carry on the federal certification work in addition to their other duties, receiving from the national government as its employees their traveling and other expenses in connection with the railway water certification work.

By 1923 more than half of the states had received one or the other type of federal aid. Certificates were at that time being received regularly from all but two (Colorado and Nevada) of the forty-eight commonwealths. Since the revised plan was inaugurated, fourteen new state divisions of sanitary engineering or communicable diseases have been created. This has meant a general strengthening of state control and supervision of local water supplies, as well as more economical administration of the interstate supplies. An annual conference of state sanitary engineers with the Public Health Service officers has been organized which is promoting uniformity of certification procedure and of water supply standards generally. A second committee of experts on Official Water Standards, convened by the Surgeon-General, made its report in 1925. Altogether the decentralization policy seems to have been fully justified as a wise and economical method.*

As yet the federal government has not contemplated a further use of its constitutional powers to protect water supplies. Stream pollution by sewage and industrial wastes at the hands of localities, to the detriment of their neighbors, has led during recent years to a growth of state con-

* As we shall see in the next chapter, the federal encouragement to state divisions of communicable diseases has extended to matters other than water supply examination—notably to the work of more complete collection and effective use of vital statistics.

trol over the intrastate pollution of streams and lakes. As population becomes more dense the pollution of large bodies of water is bound to become a problem of interstate or national concern; in several instances it has already become so. For a number of years the Public Health Service has carried on scientific investigations in this field. More recently it has used its offices to promote voluntary agreements between two or more neighboring state health departments for the regulation of the pollution of common bodies of water. Such interstate agreements have been established by states bordering on the Delaware and Ohio Rivers. Considerable optimism regarding the possibilities of this device as a solution to the problem was expressed by state and national officials at the 1925 Conference of State and Territorial Health Officers.[9] One may question its potentialities in cases where the various state interests in the use of the rivers or lakes involved become sharply divergent. Generally speaking, interstate agreements have been very few in our entire national history. At all events, the Public Health Service is seeking to encourage the use of this method by the states so far as possible, before the increase of dangerous industrial wastes and municipal sewage is such as to demand national regulation.*

Meat Inspection.—While water supplies have come under federal regulations as a protection to the interstate passenger traffic, meat and meat products have been subjected to national health supervision as articles themselves borne in interstate or foreign commerce. Although for many years there have been local police regulations of butchers and the slaughtering of meat, these measures have had as their main object the preventing of nuisances rather than

* There is some question as to the constitutional powers of the federal government over pollution of interstate streams except in so far as such pollution affects navigation or interstate commerce. But a constitutional amendment, if necessary to legalize federal regulation, would be strictly within the spirit and purposes of the Constitution.

insuring meat products against disease and poison. When state meat inspection in the direct interest of health began to develop in the early part of the twentieth century, it was soon realized that the notable concentration of ownership and control in the packing industry, as well as the creation of national and international markets for meat products, made health regulations in this field a suitable subject for national authority.

Meanwhile the national government had passed a series of regulative laws serving the interests of the animal industry and of agricultural prosperity generally. These laws were administered by the Department of Agriculture. In 1884, at the time the Bureau of Animal Industry was created in that Department, a measure was passed to prevent the export or interstate shipment of live stock affected with communicable diseases (23 U. S. Stat. L. 31); this was made more comprehensive by an amendment adopted in 1903 (32 U. S. Stat. L. 791). In 1890 the prohibition was applied to the import of live stock with, or exposed to, communicable diseases (26 U. S. Stat. L. 414). In 1905 (33 U. S. Stat. L. 1264) interstate quarantine applicable to live stock coming from districts affected with communicable animal diseases was set up under the Bureau of Animal Industry.*

* Anthrax presents the case of a prevalent and serious animal disease which may also be carried to humans. The Bureau of Animal Industry under the various statutes establishing its supervision over animal diseases has charge of the campaign against anthrax, including quarantine of live stock, inspection and disinfection of the products of dead animals, especially of hides which may carry the disease months after the death of the infected animal. This supervision is supplemented by the quarantine regulations administered by the Public Health Service aimed at shaving brushes made from animal bristles carrying anthrax spores which may serve as the agents for infecting humans. Under the quarantine regulations all shaving brushes must be sterilized by the manufacturer before they are shipped in interstate commerce. In order to establish responsibility in case of evasion of regulations, the name of the manufacturer must appear on each brush. In case of

It seemed a rather natural step to assign to the same Bureau national supervision over animals and meat products in the interest of human health. Following the canned-beef scandals in connection with the Spanish War and contemporary journalistic exposures of packing-house methods and conditions (notably in Upton Sinclair's *The Jungle*), President Roosevelt took the leadership in urging upon Congress the enactment of a law which would furnish an adequate sanitary regulation of the meat-packing industry.* The result was the passage of the Meat Inspection Act of June 30, 1906 (34 U. S. Stat. L. 669, revised as to details and reënacted March 4, 1907, 34 U. S. Stat. L. 1256), which had as its direct aim the elimination of diseased or bad meat from the human food supply.

The measure provides for federal inspection at all packing houses where animals are slaughtered and where the

imported brushes the consular authorities must provide bills of health for shaving brush shipments, based upon their adequate sterilization.

Rocky Mountain Spotted Fever is a human disease, but animals, especially sheep, act as its innocent carriers by harboring ticks on their bodies through which it is transmitted to humans. The control of this disease is mainly in the hands of the Public Health Service. The interstate quarantine regulations provide that within certain areas (comprising at most about ten states in the West) and within a defined season of the year (March 15 to June 15) no animals may be shipped in interstate commerce unless a certificate is obtained from an officer of the federal or state health or agricultural agencies showing that they are free from ticks. Since the Bureau of Animal Industry is the principal agency in charge of interstate animal quarantine and has a considerable field force, it renders aid to the Public Health Service in administering this isolated animal quarantine to prevent human disease.

*An Act of 1891 (26 U. S. Stat. L. 1090) had instructed the Secretary of Agriculture to inspect cattle intended for human consumption and shipped in interstate commerce. This was designed as an inspection of live stock, and no machinery for the more effectual and expensive post-mortem inspection was provided. It was administered for the most part as incidental to the other measures designed in the interest of animal husbandry.

meat products are to be shipped in interstate commerce, foreign commerce, or both. The shipment of any meat products in such channels is permitted only when the packing plant possesses an unrevoked federal license based upon the continued approval of its methods. The 913 packing houses (1926) thus licensed and supervised comprise practically all of those with a large volume of production. Direct and continuous inspection carried on by federal officers in each plant and involving examination of animals before slaughter, post-mortem examination of meat before preparation for shipment, supervision of the curing, preserving, and packing processes, and enforcement of regulations regarding the general sanitation of the establishment is thus provided for a large percentage of the meat and meat products consumed by the nation.

Different regulatory methods are stipulated in the law for butchers and retail dealers shipping their products in interstate or foreign commerce. For them licenses in the form of certificates of exemption are issued. These licenses are based upon periodic federal inspection; they may be summarily revoked for violation of the sanitary rules laid down for such establishments. For individual farmers there is no federal regulation at all. Since a very small amount of meat is slaughtered by farmers for the interstate market, and since inspection would involve much additional labor for small return, the omission is an eminently practical one.

The inspection of imported meat products is necessarily based upon different procedure and is carried on under the authority of a different law, the Tariff Act of October 3, 1913 (38 U. S. Stat. L. 114). In place of packing-house inspection by American federal officials a certificate of inspection is accepted from the proper foreign authorities in countries with a regulatory procedure substantially like that of the United States. In addition, the Bureau of Animal Industry may examine samples of the product to see if it is satisfactory. In any case the customs officers must submit

notices of arrival of all foreign meat shipments to the Bureau and receive from it a certificate before the goods are admitted.

Altogether the Bureau of Animal Industry through its Meat Inspection Division issues certificates based upon adequate and expert inspection for about 60 per cent of the meat slaughtered in the United States and all that is imported into it. Economical and efficient as it is within these limits, it does not reach the other two-fifths of the domestic meat production which, being intrastate in distribution, does not come within the legal or constitutional authority of the federal Bureau. From the functional point of view such incomplete administration, tending to vitiate the effects of the work done, remains one of the chief problems in this field. To quote from the *Yearbook of Agriculture* (1916):

> Federal meat inspection statistics show that certain percentages of the different species of animals slaughtered are affected with some disease or condition in such degrees as to require their condemnation in whole or in part. Some of the establishments at which Federal inspection is maintained have endeavored to avoid the loss incident to condemnation by exercising great care in the purchase of animals, accepting only such as appear to be sound and healthy. This has the effect of reducing the losses at such establishments, but it also tends to divert the sale of the animals of doubtful soundness to plants that operate without inspection. . . .
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> Many of the slaughtering houses which operate under no system of inspection have features that are not only objectionable, but dangerous to health. Their construction is such as to make them incapable of being kept sanitary. Their water supply and drainage systems are inadequate and but little systematic attempt is made to keep them clean, and some are inexpressibly foul and filthy. Usually there is no protection of the meat against rats, flies, and other insects and vermin, and this condition is a dangerous source of contamination and infection.

Except for an unlikely extension of federal constitutional power in this field, improvement must come through the slow process of strengthening state and local agencies of meat

control. The intrastate plants are the small and scattered ones; the individual farmers are even harder to reach. The proper regulation of this part of the national meat supply may be in some such centralizing device as the erection of municipal abattoirs rather than the logical extension of federal machinery. The rôle of the national agency is suggested by the activities of other federal bureaus in meeting similar problems. Informal aid and encouragement at the hands of the field personnel, detail of personnel and financial help to states, establishment of uniform standards and efficient methods, are possibilities. Recent steps in this general direction have been taken.

The only other general administrative problem raised by meat inspection is whether it is properly one belonging to a federal agricultural bureau or to the federal health service. Without attempting at this point to give any answer to the question it will suffice to point out the relations which the Meat Inspection Service has to the other work in the Department of Agriculture. It is in many ways the most important division in the Bureau of Animal Industry. About 65 per cent of the 4,200 people employed in the Bureau are engaged in its work. The main energy of the other divisions is directed toward the prevention and control of animal diseases through quarantine and campaigns of eradication, through the manufacture and distribution of animal serums, viruses, etc., through scientific research into causes of animal diseases, and through the promotion of sound animals by means of live-stock demonstrations and other methods of animal husbandry.

The work of the entire Bureau is thus seen to have a fairly close interrelation. Successive annual reports of its Chief note that the statistics of slaughtered animals gathered by the Meat Inspection Service serve both as valuable criteria of production and as clues to the location and prevalence of animal diseases. The Meat Inspection Service has its own laboratory at Washington and six others in the field.

The scientific investigations carried on in these laboratories are supplemented in a valuable way by those prosecuted in the laboratories of the Pathological Division. Conversely, the latter research agency through its tests of biologic products frequently aids in the meat inspection work, and at times uses the federally inspected plants for its field researches. These organic connections are important enough to give reason for hesitation in severing meat inspection from the Bureau. But it is in the joint use of the expert veterinary personnel that the most vital relationship is evident. As described in the 1921 report (p. 6), the Bureau veterinarians have been developed into a sort of general corps for the performance of its tasks in the field. To quote:

> As the different eradicative measures have developed (campaigns for the eradication of scabies, dourine, Texas fever, hog cholera, and tuberculosis), the bureau has to a greater and greater degree linked them together and combined them with the meat-inspection service. It is now a common practice to place all the disease-eradication work of a State or district under the control of one inspector in charge, who diverts his men from one project to another as circumstances may demand, charging the time consumed and the travel performed to the proper appropriation. In addition the practice is prevailing to a constantly increasing degree of shifting veterinarians from meat inspection to field work at the opening of the field season in the spring. Fortunately this is possible, as the great demand for meat inspection comes during the winter, when, because of weather conditions, the field service is curtailed. In these shifts the bureau makes every effort to change from station to station the younger and unattached members of the forces. The result has been the development of a large body of veterinarians who are capable of meeting all the demands made by the various forms of activity. Another important result has been the economy and efficiency of avoiding surpluses or idle forces when work falls off and insuring that there shall be no duplication of inspectors traversing a given territory.

Food and Drugs Regulation.—Except in the cases, already considered, of drinking water and meat products and a few foods such as milk and shellfish, the need for regulat-

ing the general food supply to prevent the transmission of communicable human diseases is not superficially apparent.*

Nevertheless, in the broad view of the public health function—as that of preventing disease and prolonging life—the control of food and drinks is an important matter. Foods may be manufactured and packed in such a way as to transmit poisons to the consumer. An epidemic caused by tetanus or the *bacillus botulinis* resembles closely an epidemic from germ disease spread by human contacts. By adulteration and misbranding, in which the substitution of ingredients of less nutritive value and medicines of no curative value is involved, foods, drinks, medicines, and drugs become deleterious to the health of the consumer. Watered milk used for children and useless patent medicines are certainly of significance from the point of view of health. Finally, food, especially medicines and drinks, may contain in open or concealed form narcotic drugs which promote the health-destroying drug habit in the user.

It should be kept in mind that an important purpose of practically all food and drug laws has been that of preventing fraud and of giving economic protection to both consumer and rival producer. Cheaper substitutes may at times be quite harmless, even beneficial to health. Honest weights and measures have little sanitary significance. In practice

* Until the very recent passage of the law (S. 4126, 69 Cong. 2 Sess., Feb., 1927) regulating the importation of milk and cream (the operation of which has not yet begun) there has been no national regulation of milk other than that contained in the Food and Drugs Act. Certain metropolitan centers, especially in New England and the Mississippi and Missouri River valleys, receive a large part of their daily milk supplies from interstate sources. In these sections the Food and Drugs Division, with expert assistance from the Dairying Bureau in the Department of Agriculture, has conducted systematic campaigns to eliminate from interstate commerce milk dangerous to the public health. As we shall see in a later chapter (Chapter XIV), the Public Health Service is dealing with the problem by attempting to secure standard milk laws and ordinances. Since a large part of the milk supply (unlike meat) is obtained from intrastate sources, regulation is necessarily a matter largely for state and local health departments.

it is difficult to isolate the health from the fraud purposes of the laws and of their administration. In this discussion, however, emphasis will be placed upon the aspects of health rather than of commercial fraud.

During the active period of the eighteen-seventies the reports of state boards of health gave a goodly amount of space to addresses and papers dealing with conditions of food and drug manufacture. In 1880 the National Board of Trade offered a thousand-dollar prize for the best essay on the subject embodying a proposed law for the prevention of food adulteration.[10] The bill suggested by the winner, a British food official, became the basis for most of the general food laws enacted by the states during the years following. By 1900 nearly three-fourths of the commonwealths had passed measures aimed at food and drug adulteration and misbranding. As might be expected, some of the laws were excellent in character, some were poorly drawn, some were adequately enforced, others had little or no appropriation or personnel for making them successful. All were limited in effectiveness by the fact that state authority could not go beyond state boundaries while the products regulated were themselves national or international in manufacture, distribution, and sale. Coupled with this inadequacy was the fact that the various state enactments had deviated from the early model to such an extent that confusion and contradiction between requirements faced the manufacturer with an interstate market at every turn. There arose a demand for uniform national legislation on the part of the state officials themselves.

As early as 1848 Congress passed a law (9 U. S. Stat. L. 237) designed to prevent the importation of inferior and adulterated drugs and medicines.[11] * In 1890 another stat-

* A series of measures designed to protect farmers against fraud and injurious competition was passed during this period. In practically all of them the method of a prohibitory excise tax was used to accomplish the desired ends. In 1886 oleomargarine colored to resem-

ute prohibited the import of adulterated foods and drinks (26 U. S. Stat. L. 414). Enforcement of these measures was left to the regular customs officials until 1900, when the Bureau of Chemistry was given the authority to examine imported foods and to exclude those which violated the law. In 1903, although the Secretary was authorized to establish standards for food products, no means was provided for their enforcement (32 U. S. Stat. L. 296).

Beginning at about 1891, there was an almost continuous effort made to obtain the passage of a general food and drugs law such as was finally adopted in 1906. In all, during the fifteen years, twenty-two measures with this purpose were introduced in the House and twenty-six in the Senate.[12] Dr. Harvey Wiley of the Bureau of Chemistry from the first was an active protagonist and expert adviser in the matter. In 1898, when the Association of State Food Control Officials was definitely organized, it began at once advocating a uniform federal pure-food law applying to articles in interstate and foreign commerce. The American Medical Association gave active support especially to the sections regulating patent medicines. Some of the food and drug manufacturers, notably those organized into the National Wholesale Grocers' Association and the National Canners' Association, and a minority of the whisky manufacturers, went on record in favor of a federal measure to promote honest competition in their products through prevention of adulteration.

Finally by 1905 the subject, unlike almost all public health measures, became a major legislative issue. President Roosevelt and leading Progressives helped to make it an item in the legislative program. Powerful interests ranged

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ble butter was taxed and in 1902 the tax was increased to such an amount as to make it in effect prohibitory. In 1896 a similar tax was laid against filled cheese and mixed flour. In 1897 a law was enacted setting up standards for imported tea. In 1902 an Act was adopted requiring the manufacturers of food and dairy products to label correctly the place of their production.

themselves for and against it in the Washington lobbies and propaganda was carried on throughout the country. In 1903, 1904, and 1905 a food and drugs bill passed the House, but was defeated or allowed to die in the Senate. It was presented again to the Senate at the beginning of the session in December, 1905. Its advocates rallied behind it. Against it were the whisky blenders organized into the National Association of Liquor Dealers, the patent-medicine manufacturers, the cotton-seed-oil men of the South who were misbranding their product as olive oil, some of the food manufacturers organized into the National Food Manufacturers' Association and carrying on publicity through the *National Druggists Magazine*.[13] In Congress the cleavage followed partly the emerging stand-pat-insurgency alignment and partly the conflicting views of local manufacturing interests. But in June, 1906, when the bill came to a vote, the opposition had practically vanished. It was adopted with only four dissenting votes in the Senate and seventeen in the House, all of them those of Democrats from the South (34 U. S. Stat. L. 768).

The health provisions of the Act appear in several of its sections. The inclusion of poisonous substances or those deleterious to health is directly forbidden. In practice this includes canned goods prepared in such a way as to develop poisons. Certain habit-forming drugs must be named on the package. And finally the label of each package of food, drink, or medicine must contain no false or misleading statements as to its contents. Fraudulent claims as to the curative properties of medicines were held not to be illegal under the Act by a Supreme Court decision in 1911 (U. S. *v.* Johnson, 221 U. S. 488). To remedy this the Sherley Amendment was passed a year later (37 U. S. Stat. L. 416) punishing fraudulent and false statements as to the therapeutic value of medicines.

The law consciously left much detail to be filled in by administrative regulations for the preparation and revision of

which it provided a board of three consisting of the Secretaries of Agriculture, Treasury, and Commerce and Labor. The first regulations, actually written by a committee of experts in the three Departments after extensive hearings, were promulgated October 17, 1906. Enforcement was placed in the hands of the Bureau of Chemistry in the Department of Agriculture. For the new work a Food and Drugs Division was set up.

In the case of foreign imports of food and drugs the administrative methods are much like those of meat inspection. Invoices of all shipments of these articles are sent to the Department of Agriculture by the customs officials. On the basis of the invoice the Bureau decides whether to examine samples. When upon examination it is found that the goods violate any of the provisions of the law they are refused entry. By this procedure the control of imports is comparatively complete and thorough.

The control of domestic food and drug products, however, is carried on in a way quite different from that of meat inspection. The regulations provide for no system of food licenses made after inspection of the processes and places of manufacture. In fact, the law gives no power at all for inspection of food or drugs at the factory. Enforcement is carried on mainly by examination of samples while they are legally in the channels of interstate commerce and the confiscation of goods or the punishment of dealers or manufacturers found by the evidence to have shipped articles which violate the provisions of the law. The country is divided into three law enforcement districts in each of which are several stations with inspectors and a station laboratory. When samples are found at these laboratories to be in violation of the law there is a local oral hearing, a review of findings by district headquarters, and finally by a board of three officials in Washington consisting of the Bureau chief, the assistant Bureau chief, and the Solicitor of the Department of Agriculture. If prosecution is finally decided upon,

the case is turned over to the United States District Attorneys and the Department of Justice. Although both confiscation of goods and fines are penalties under the Act, the heaviest punishment is frequently the loss of reputation and sales due to the publication of an unfavorable court judgment.*

Despite the fact that the Food and Drugs Division has performed its work with efficiency and zeal, it cannot be said that federal regulation has obtained the benefits for health and honest competition which the situation demands. This is mainly due to defects in the law. Although continuous inspection of the manufacturing process is not necessary, as it is for adequate meat inspection, legal authority for occasional and periodic factory inspection would result in more constructive and more effective control. The Bureau officials during recent years have built up the machinery of factory inspection by consent of the manufacturers, reserving the inspection of samples for products which, on account of the refusal of manufacturers, are not inspected during the process of manufacture.

Like federal meat inspection, food and drugs control is limited to those articles which are shipped in interstate and foreign commerce, leaving to the states complete jurisdiction over foods sold in an intrastate market only. Although the federal law has tended to promote state uniformity, there is still too much laxness and contradiction in regulations. During recent years two agencies have been created by the federal Bureau to improve the situation. One, the Joint Committee on Definitions and Standards, consists of representatives of the Bureau and of the state and municipal officials organized in the Association of American Dairy,

* It should be noted that the Post Office Department through its fraud orders serves as a valuable ally in the regulation of foods and drugs. The Postal officials use the laboratories of the Bureau of Chemistry for the necessary analytic work in determining the existence of fraudulent claims in the case of medicine and foods.

Food, and Drug Officials. This Committee works out and suggests uniform definitions and standards for adoption by all the food-regulating agencies. The other, the Office of Coöperative State and Federal Food and Drug Control, located in the Bureau of Chemistry, is essentially a national service agency for state and local officials. It acts as a clearing house in matters of food and drug control, furnishes regular information and assistance to state officials, and obtains in a fairly satisfactory way a coöperative rather than a conflicting enforcement of the food and drug laws of the nation.[14] The state officials, who are empowered to institute cases under the federal law, frequently submit samples for consideration by the Bureau. How far this active attempt to obtain voluntary coördination of effort will eventually succeed cannot yet be determined.

Just as in the case of meat inspection the question has been raised as to whether food and drug control is not a health function more properly administered by a public health bureau than by the Department of Agriculture. The Bureau of Chemistry was established in 1862 as a small division in the Department of Agriculture and served for many years as a scientific research agency in problems of agricultural chemistry, performing work for the various other units of the Department. When the Division of Food and Drugs was created in 1906 for regulatory rather than research purposes, it became the main part of the Bureau as far as funds and personnel are concerned. With the passage of time the problems of agricultural chemistry have become increasingly specialized so that the various bureaus in the Department have organized their own chemical research laboratories. The research problems undertaken in the Chemistry Bureau during recent years have been confined, in consequence, largely to those of food utilization which in some cases are closely connected with constructive food regulation.[15] Food and drug regulation has in itself required the organization of laboratory research. This has been carried on in labora-

tories within the Division or in other laboratories of the Bureau. There is in the Department of Agriculture a Bureau of Home Economics which carries on studies in the nutritive values of foods. If regulation should in future include the establishment and enforcement of food standards above minimum levels of purity, there might be established a close relationship between this unit and the Food and Drugs Division. At present, if the Food and Drugs Division together with its research laboratories were removed from the Department of Agriculture, although it would leave a somewhat vestigial chemical laboratory, it would not sacrifice any vital relationships within the Department. If transferred to a health department or bureau, however, it would entail placing within such an agency the task of preventing commercial fraud, which is an important part of the food regulation statutes. This aspect of federal food and drugs control is more germane to the task of the Federal Trade Commission engaged in enforcing fair practices in all commodities transported in interstate commerce, than it is to either the chief agricultural or health agency.[16]

Shellfish Control.—Until recently the sanitary control of shellfish has been divided among several federal agencies. The Bureau of Fisheries in the Department of Commerce, with a trained staff of scientists, is interested in shellfish culture; the Bureau of Chemistry in the Department of Agriculture punishes misbranding and adulteration of shellfish in interstate commerce under the Food and Drugs Act; and the Public Health Service has carried on investigations in the pollution of shellfish-producing beds as a part of its studies of stream pollution. For their handling and sale the state and local health authorities have administered sanitary regulations.

In December, 1924, a typhoid epidemic in the Middle West was traced to oyster pollution; the publicity given to it led to a severe setback for the oyster industry. In January, 1925, the Bureau of Fisheries held a conference with repre-

sentatives of the oyster industry, the Bureau of Chemistry, and the Public Health Service to consider the various aspects of the situation. After a preliminary investigation and report the Public Health Service held another conference (February 19, 1925) at which the three federal agencies, the oyster producers, and also some of the state health officers, were present. At this conference it was agreed that the Public Health Service should assume leadership in working out a system of coöperative supervision over the interstate aspects of the problem. A committee was appointed by the Surgeon-General to frame definite recommendations. Congress appropriated a sum to be used by the Service in inspection of the shellfish areas.

The program as finally worked out included a model state law for examination of shuckers, inspection of shellfish beds, and sanitary handling of shellfish. According to its provisions the states are to issue certificates to shellfish producers who satisfy their requirements, and the Public Health Service, if it finds the system of state control satisfactory, is to accept these certificates for shipment in interstate commerce. The Service has created seven shellfish districts identical whenever possible with its general interstate sanitary and inspection districts. To each district it has assigned trained officers to conduct examinations of shellfish beds and to coöperate with the states in building up adequate control measures. A floating laboratory has also been organized by the Service with the double purpose of training its personnel for this specialized sanitary work and of conducting scientific investigations into the various aspects of the problem. The present program of sanitary supervision of shellfish thus represents different administrative machinery from that set up for meat or food and drugs generally. It is as yet too early to pass judgment upon its efficacy.[17]

Licensing of Sera and Viruses.—In regard to one class of medicines—vaccines, sera, and viruses used for human diseases—the federal government has not been content with

the relatively general and mild supervision contained in the Food and Drugs Act. By an Act of July 1, 1902 (32 U. S. Stat. L. 729), a system of federal license, based upon observance of national sanitary regulations and checked by periodic inspection, was set up for manufacturers who ship these biologic products in interstate commerce. Under the law a board consisting of the three Surgeon-Generals is required to prepare rules for obtaining and retaining the federal licenses. Every article manufactured under such license is required to bear the manufacturer's name, the license number, the name of the article, the date of manufacture, and the duration of potency. The regulations, first prepared in 1903 and revised in 1909 and 1919, are detailed in their requirements as to the manufacturing process and sanitary conditions of the plant. Enforcement is in the hands of the Public Health Service whose officials make unannounced inspections and decide annually upon the reissue of licenses. In the case of imported vaccines, etc., the collectors of customs refer each lot to the Service for examination. Since the manufacture of these biologic products is limited in practice to comparatively few establishments practically all of which have an interstate market, the method of federal license and inspection is both effectual and economical.[18]

Habit-forming Drugs and Liquor.—For habit-forming drugs and for spirituous liquors designed for beverage purposes the national government has supplemented the provisions of the Food and Drugs Act by a rigid system of national prohibition based upon other laws. It will be remembered that the Food and Drugs Act merely requires that the presence of certain dangerous drugs shall be stated on the label of all foods, drinks, or medicines containing them. Under an Act of 1909 (35 U. S. Stat. L. 614), amended by the Acts of January 17, 1914 (38 U. S. Stat. L. 277), and of June 16, 1922 (42 U. S. Stat. L. 596), the importation of all narcotic drugs with the exception of crude opium and coca leaves is absolutely prohibited. By it the

Federal Narcotics Board, consisting of the Secretaries of State, Treasury, and Commerce, is set up and authorized to determine the amount of coca leaves and opium necessary for medicinal and legitimate uses in the United States and their importation is limited to the amount thus determined.

By the so-called Harrison Drug Act of December 17, 1914 (38 Stat. L. 785), amended by the Revenue Act of 1919, a nominal tax is laid upon all importers, manufacturers, producers or compounders, wholesale dealers, retail dealers, physicians, and other practitioners who dispense opium, coca leaves and their derivatives. The law, which requires a complete recording of all sales of the drugs, is mainly for the purpose of obtaining an accurate knowledge of the nation's use of its narcotic drug supply. The Act is enforced by the Internal Revenue Bureau in the Treasury Department. No prohibition or punishment for sale or disposition of these drugs for other than medicinal purposes is contained in the law. The frequent federal convictions under it are for unregistered sales. Its usefulness is in making the records of all sales and prescriptions available to state and local enforcement officers.

After a series of federal statutes aimed at aiding the states in the control or prohibition of the liquor traffic the Eighteenth Amendment to the federal Constitution was adopted in 1919, making the absolute prohibition of liquor for beverage purposes a matter for national enforcement. An analysis of the enactment of the Amendment and the enforcement laws under it, as well as of the administration of the national and state prohibition laws, is too complex a subject to be dealt with here. Undoubtedly the experiment is of crucial importance both from the point of view of centralized administration and as a measure of public health. There is as yet very little evidence by which scientific judgments can be made regarding either of these matters.

Summary.—Our review of the federal control of commerce in the interest of public health reveals that quarantine

has far outrun the old protections against epidemic diseases. Travelers with acute, self-limited, communicable diseases other than epidemic are isolated and detained; those with chronic infections are permitted to travel under safeguard. In place of the older unscientific quarantine of merchandise from epidemic areas there has grown up an extensive sanitary regulation of specific articles in commerce. Water, milk, canned goods, shellfish, drugs, and medicines have all come under federal control through prohibition, license, inspection, and examination of samples in transit. With this newer type of quarantine of commerce the national control of persons and articles at the ports of entry is such that complete and effective inspection and regulation are possible. But in the case of water, milk, food, medicine, and drugs a large proportion of the total consumption comes from domestic production. And only such articles as use the channels of interstate commerce are subject to federal control. To obtain uniformity and completeness of supervision it is necessary to obtain a coöperative arrangement between state agencies controlling intrastate distribution and sale, and the federal agencies. A comparison of the devices for obtaining such uniformity is informative. In fact, it is one of the major administrative problems in this field. Another general problem involved in the sanitary control of food and drugs is whether, and to what degree, the regulatory agencies should be organized under the central public health agency rather than left in other major units with which they have vital operating relationships. This question can best be answered later when the whole machinery of national health administration has been examined.

CHAPTER XIII

VITAL STATISTICS, SCIENTIFIC INVESTIGATION, AND EDUCATION

In a well-known discussion of the relation of local to central government John Stuart Mill summed up the proper arrangement of the group of functions which includes sanitation by the statement, "power may be localized, but knowledge, to be most useful, must be centralized." [1] By such an allocation, he argued, local governments would retain freedom for variety in experiment and the adaptation of governmental power to special conditions. At the same time a central agency, by its inherent superiority for the task of gathering and publishing information from wide sources, would provide for the continuous interchange and comparison of methods and the diffusion of successful experiments which would save decentralization from the evils of ignorant and narrow provincialism.

In our national government this concept has received practical acceptance. Requiring no police authority, merely Congressional appropriations, for its exercise there has been a gradual but extensive growth of such clearing-house functions as the collection and compilation of vital statistics, the prosecution and publication of scientific investigations, the distribution of information useful to local officials and to the general public, the stimulation of laggard states by demonstrations of progressive sanitary administration, and the offer of financial and personnel aid.

Vital Statistics.—Chief among the services of this nature is the federal collection, tabulation, and publication of vital statistics. Every area of health administration requires a

knowledge of births, deaths, and sickness as an essential tool in disease control.* Through them the existence or unusual prevalence of communicable disease is first reliably known. Through them the foci of infection are discovered and control directed into specific channels. Through their classification and study health agencies can arrive at some measure of accomplishment, weigh more accurately the relative importance of different disease problems, and direct more intelligently their administrative energies.

To be useful for these purposes vital statistics must be uniform and complete. To be of greatest value, moreover, they should be obtained from the widest possible areas. Hence the collection of uniform and complete statistics by a central health agency is of great importance as a service to the states and localities, as well as of direct usefulness in federal quarantine and other disease-control work. Although not explicitly legalized as a national function in the original Constitution, the task has been undertaken under federal appropriations and with the voluntary coöperation of the states.

Deaths and Births.—The United States Bureau of the Census has been the principal agency for developing national statistics of births and deaths. Charged under the Constitution primarily with the taking of the decennial population census it administers an elaborate periodic enumeration of the general population, using the methods of personal canvass and oral questioning of householders. As a part of this work valuable information as to ages, nationalities, sexes, and occupations has been assembled. These provide the necessary population totals to be used as bases for practically all birth, death, and disease statistics. For many years there was no separate effort to collect and tabulate

* Marriage and divorce records are also included under the general term vital statistics. Although these records are of value for legal purposes and for social investigations, they are of only incidental significance to public health. They are, therefore, not discussed here.

death or disease records. Beginning with the Census of 1850, however, such an attempt was made by the use of the existing machinery of enumeration. But the results proved unreliable and in 1910 the practice was entirely abandoned. The former Director of the Census has explained the reason for the inadequacy of enumeration:

> Existing facts, as for example the status of the population at a certain date, can readily be ascertained by a count conducted at that date or extending through a brief interval of time. On the other hand, events succeeding one another in time can be completely and surely recorded only by means of a system of registration in constant operation. The lapse of time, even a comparatively short time, dims the recollection of past events. When the attempt is made to recall the births, deaths, or marriages for a year past and to set down the details, it is found that a considerable number fail to be recorded; and the details concerning those recorded are less trustworthy than if the records had been made immediately after the occurrence of the events.[2]

In line with this conclusion the attempt was made under Census auspices, beginning in 1880, to collect birth and death statistics by personal registration. The chief promoter of the plan was the versatile Dr. John S. Billings who at the time was a member of the National Board of Health and chairman of its Committee on Vital Statistics. In this capacity Dr. Billings made an extensive report on existing state registration laws[3] indicating that although twenty-three states had registration statutes, only eight published vital statistics of any scientific value. While asserting in his report that direct and uniform national collection of vital statistics would logically be the most effectual system, he dismissed such a method as not immediately practicable on account of the resulting federal expense. He proposed, as an immediate solution, federal financial aid to state and local registrars with coöperation in meeting the cost of collection of all vital statistics.

Largely through Dr. Billings's influence, the first federal "registration area" was established by the 1880 Census.

Such an area consists of those states and cities which satisfy federal tests as to adequacy of registration laws and completeness of collection of mortality statistics. In such places the Census Bureau obtains copies of the individual mortality certificates and edits, tabulates, and publishes statistical summaries. The death registration area started modestly enough with two states (Massachusetts and New Jersey), the District of Columbia, and nineteen cities in other states. It included in all 17 per cent of the whole population. Since there was at that time no permanent Census Bureau, the mortality statistics could be collected only once in a decade in connection with the general census work. In 1890 several other states and cities had been added, so that the percentage of total population included in the area rose to 31.4. In 1900 it had been increased to 37.9 per cent.

By an Act of 1902 the permanent Census Bureau was established. In it was included an office for the continuous collection of vital statistics, with a chief statistician at its head. Summaries of vital statistics now began to appear for each week, month, and year. The registration area continued to grow, so that in 1910 it included 58.3 per cent of the population; in 1921, 82.2 per cent; and at the present time (1926), 89.8 per cent. There are now forty-one registration states, and in addition the District of Columbia, the territory of Hawaii, and twenty-four cities in non-registration states.[4] Unfortunately, as the states not yet included (Nevada, Georgia, New Mexico, Oklahoma, Texas, Arkansas, and South Dakota) are to some extent concentrated in the middle South and Southwest, estimates of the total national death rates are still inadequate.

In 1915 the Census Bureau, utilizing the same machinery, established a birth registration area. Despite the fact that complete registration of births is probably more difficult to secure than that of deaths, the area has grown from the ten states and District of Columbia, with which it originated, to thirty-five states and the District with a total of 76.8 per

cent of the population. (The non-registration states for births are the same as for deaths, with the addition of Louisiana, Alabama, South Carolina, Tennessee, Missouri, and Colorado.)

After the foundation of the permanent Census Bureau in 1902 the Vital Statistics Division, first under the able and zealous leadership of William Alexander King and later of Dr. Cressy Wilbur, became the center of the effort to extend the registration area. The method adopted was that of urging upon the states a model registration law, and then promoting the adequate enforcement of that law. As early as 1895 the Vital Statistics Committee of the American Public Health Association had proposed that a model registration law be drafted. In 1900 the Association, adopting the suggestion of its committee, prepared a model law for the registration of births and deaths. When about 1907 the Model Law took definite form it had been revised in cooperation with the Census Bureau which was able to draw upon its accumulated knowledge of existing state statutes. The American Public Health Association, the American Medical Association, and, after its founding in 1912, the federal Children's Bureau, joined actively with the Census Office in the state campaigns for its adoption. So successful has this campaign been that all but three states—Texas, Nevada, and South Dakota—have enacted the Model Law for both births and deaths.[5] In almost all cases the attainment of the standard of 90-per-cent adequacy in actual registration, required by the Bureau for admission to the registration area, does not lag many years behind the adoption of the Model Law. It is, then, not Utopian for the Chief of the Vital Statistics Division to urge the completion of the entire national registration area by 1930. The accomplishment of such an objective would indicate the possibility, at least, of obtaining voluntary uniformity and coöperation between state and national administrations by the method of federal persuasion. But such uniformity, as in this case,

is obtained at great cost of energy and after a long period of delay.

Purely voluntary coöperation, moreover, has thus far necessitated a certain wastefulness in administration. Local registration of births and deaths of some sort and for the varied purposes of probating wills, establishing insurance claims, pensions, proving ancestry, determining crimes, parentage, citizenship, school age, and age of consent, long antedated its use for purely public health objects. Often, therefore, the local or state registrar is not connected with the public health agency at all. Under the Model Law the attending physician or midwife in case of births and the undertaker in case of deaths must file the proper certificate with the local registrar. The undertaker is obliged to secure the signed statement himself from the attending physician as to medical cause of death before he is given a burial permit.[6] The local registrar, an accessible town or city official, has as his duty the copying and filing of all certificates and the periodic transmission (usually monthly) of the original certificates to the state registrar who binds and indexes them as permanent records. The state registrar scrutinizes the returns to see that they are properly and completely filled out and checks the local officials to see that registration is complete. He also tabulates the certificate returns presenting monthly and annual statistical summaries. If such machinery in each state were adequate and uniform with identical nomenclature, it is plain that the federal task would simply be one of obtaining the state summaries and making from them national totals and summaries. Since there is no such uniformity the federal bureau pays the registration states for having copies made of each individual birth and death certificate. It then edits, tabulates, and compiles them. At times, to obtain a more adequate certificate, it goes back to the local registrars and physicians. Such procedure involves considerable duplication of work.

Duplication is probably not so important a defect in the

present arrangement, however, as the incompleteness of the registration area which in turn is caused by lack of adequate state and local registration law and administration. The remedy for this defect is not simple. As far back as 1880 we have seen that Dr. Billings gave as the logical solution of the problem complete federal control and administration of the work. Dr. Cressy Wilbur in a recent survey of the situation offered direct federal registration as one of two alternatives. Such a method (probably involving a constitutional amendment) might easily solve the problem of uniformity, but it would probably not be an automatic solution to the problem of adequacy and completeness. Local and state registration would in that way at once become universal. But fifteen or twenty thousand federal registrars in the localities performing comparatively simple tasks would offer an unrivaled opportunity for the extension of the spoils system. In this event the registrars would be local party workers not equipped for their tasks and probably no more zealous in its performance than at present. Dr. Wilbur's alternative suggestion for further federal aid in registration is more immediately practicable. According to his statement there should be established—

> Provision, by act of Congress, for more effective coöperation of the Government with the states, embracing the thorough registration, return, and standardization of records as well as the compilation of statistical data based thereon. The cost of collection, or at least the cost of supervision, might be shared by the state and Federal governments, very much in the way that similar cooperation has been effected in the taking of interdecennial censuses. State, and perhaps local, registrars might be commissioned in the Federal service; trained inspectors to be supplied for field service; and most important of all, the franking privilege (use of penalty envelopes and labels) extended to all registration returns and supplies. This should not be done, of course, in any state until the state law and its execution were fully approved. Such use of the mails has long been customary in Canada and other countries, and no single action within the power of Congress would be more useful for the cause of registration.[7]

Morbidity Statistics.—In the case of sickness statistics this kind of federal aid has actually been put into practice on a limited scale. The collection, tabulation, and publication of morbidity returns by the national government have proceeded from a different source than that of the Census. As early as 1855 the American Medical Association recommended to the states and cities the desirability of collecting accurate and complete statistics of sickness. Massachusetts and Michigan in the eighteen-seventies made the first serious attempts at its accomplishment. Several larger cities such as New York, Philadelphia, Boston, Providence, and Newark, New Jersey, began about the same time to collect statistics for certain diseases. But for many years they were incomplete.[8]

As we have already seen, the national Quarantine Act of 1878 set up the Marine Hospital Service as a central agency for the collection and publication of statistics of the epidemic quarantinable diseases. For the first time international vital statistics were collected. This information, supplemented by such records of communicable diseases as could be collected from states and cities within the United States, was published by the Service in a weekly *Bulletin*, the forerunner of the *Public Health Reports*. At the end of the year 1878, twenty-five cities were submitting regular mortality reports for the *Bulletin*.[9] During the next four years of quarantine administration at the hands of the National Board of Health the work was continued and considerably developed. By 1882 two hundred cities were submitting regular mortality data. In 1880 the Board held a conference in Washington on methods of collecting vital statistics and of uniform nomenclature of diseases.* For many years after

* The problem of disease nomenclature is important in connection with both morbidity and mortality statistics. As early as 1872 and 1873 the American Medical Association indorsed the use of the Provisional Nomenclature of the Royal College of Surgeons (British) and it was adopted in the same year by the Marine Hospital Service. Through the advice of Dr. Billings the 1870 and 1880 censuses adopted

the Marine Hospital Service resumed control of quarantine and the collection of vital statistics the returns from states and cities remained fragmentary. Until the Census Bureau began the continuous compilation of mortality returns, however, they served as some index of the prevalence of communicable diseases between the census years. When the Census Bureau in 1902 assumed charge of mortality statistics the Service turned its attention more particularly to the collection of sickness reports.

In 1901 blanks were furnished all cities with a population of ten thousand or more for weekly summaries of both morbidity and mortality. Regular returns were received from about one-fourth of them. In 1906 the present reporting system was established—*i.e.,* weekly postal returns from cities, of mortality and morbidity as regards the reportable diseases; from states, monthly mail summaries of state morbidity returns; telegraphic reports of epidemic diseases from both cities and states; and from consular and Service officials stationed in foreign ports, cable and mail reports of the prevalence of disease in their localities. In addition annual mortality summaries are now received from the Census Bureau and weekly cable and radio summaries from the epidemiological service of the League of Nations.

Despite long-continued efforts at persuasion by the Service, there was up to 1906 no uniformity or completeness in disease reporting. In 1907, however, the newly formed Vital Statistics Section of the American Public Health Association took up actively the matter of improving the situation.[10] With the coöperation of the Public Health

it also and thereafter urged its adoption in its work among the state registration agencies. At the 1880 conference in Washington Dr. Billings was made chairman of a committee to advise with the Royal College in making suggestions for its revision. A majority of the American suggestions were adopted, the revised work becoming the International List of Causes of Death. The Health Section of the League of Nations is now taking the leadership in promoting international uniformity in disease nomenclature.

Service officials a model state law for morbidity reporting was drawn up and was approved at the Annual Conference of State and Territorial Health Authorities in 1912.[11] Within a year thereafter it was adopted in several states.

The Conference also requested the Surgeon-General to follow the method of the Census Bureau by establishing a morbidity registration area. Rather than make such an attempt the Service instituted a plan of personnel and financial aid to the vital statistics authorities of the states. Beginning in 1914 collaborating epidemiologists were appointed in several of them. In practically all cases they were state health officials appointed to serve also as federal officials at a nominal salary. Since 1924 they have received no more than one dollar a year as federal salary. The primary task of these liaison officers is to keep the national bureau informed regarding the unusual prevalence of epidemic diseases. They also direct their efforts toward the uniform collection and more effective use of morbidity statistics for state as well as federal purposes. As federal officials they receive the privilege of franking individual post-card reports by physicians. This is used to stimulate reporting and serves as practical federal financial aid to the states. In several states local or district health officials have been appointed assistant collaborating epidemiologists serving under the state epidemiologist. From the state collaborating officers the weekly telegraphic summaries of notifiable disease prevalence and monthly mail summaries are received. Weekly summaries are still obtained from the cities, but in many cases from local officials designated as the assistant collaborating epidemiologists.

In 1914 collaborating epidemiologists were assigned to five states. By 1918 the number had risen to twenty-three with 459 assistant collaborators, in 1920 to thirty-two states with 2,803 assistants, and in 1926 to forty-two states with 4,419 assistants.[12] Although it is difficult to measure the success of this method of federal stimulation, it has undoubt-

edly resulted in considerable improvement both in the standardization of state and local returns and in a greater efficiency of the state's own utilization of vital statistics. A large part of the United States is now covered by the cooperative system.

Instead of compiling summaries from a tabulation of the original returns the Service accepts as final the summaries of the states. Nor does it set up tests of completeness before using the state and local figures. For purposes of current location of communicable disease it should be remembered that even incomplete statistical returns are of value. There is still some indication, however, that the device of a registration area would be instituted if there were sufficient appropriations.[13] During the war in the extra-cantonment zones an approach to such an area was made. The Service officials in charge of these zones, with the coöperation of the Red Cross and local health authorities, introduced a system of complete morbidity reporting. They transmitted the original case records to Washington, as well as sending in daily morbidity reports by mail, and weekly telegraphic summaries. At the end of the war, however, the work was necessarily abandoned.

Beginning in 1916-17 the Service in collaboration with the Vital Statistics Section of the American Public Health Association developed a plan for the establishment of a voluntary federal registration area for industrial disease statistics. According to this plan industrial surgeons or clerks are made Public Health Service officers at nominal salaries, in consideration for which they agree to submit transcripts of their individual industrial sickness and accident reports for central tabulation and study. The plan was actually put into operation in 1920.[14] A similar proposal has been made for a hospital voluntary registration area. In any survey of federal morbidity statistics it should not be forgotten that the Medical Departments of the Army and Navy have been pioneers in maintaining thorough, uniform, and complete

morbidity and mortality reporting among the special groups of the population which they control. The military sickness statistics are not only effectively used for current disease control, but have yielded admirable results for scientific statistical epidemiological investigations.*

Summary.—Our review of the collection of statistics of births, deaths, and sickness reveals that its adequacy depends primarily upon the efficiency of state and local agencies. The original individual records upon which all tabulations are based require the work of intelligent, careful, and public-spirited physicians and midwives, and, when mortality certificates are to be issued, of painstaking undertakers. Local collection depends in the second place upon a host of local registrars who must see to it that the recording is accurate, uniform, and complete. Although state and federal oversight can accomplish much, it is the local task that is the strategic one. The registration work in the localities and at the state capital is sometimes in the hands of special officers called registrars, sometimes in charge of officials engaged in other tasks, sometimes partly or wholly in the charge of the health officials. The federal collection is divided between two agencies, the Census and the Public Health Service. The question might fairly be raised as to whether there would not be a gain in efficiency if both locally and in the federal government vital statistics were unified under the health administration.

The knowledge gained from birth, death, and disease registration is of distinct value to the local health office. If the tasks of local collection and utilization were united, would there not be greater likelihood of developing a more expert local registration personnel and a more complete and unified program for educating physicians to submit complete, accurate reports? United nationally under the Public Health Service, there would not only be an augmented opportunity for vital statistics research but also better machinery for the

* See Chapter V.

extension of federal aid to states and localities. Since the Vital Statistics Division does not use the regular method of periodic enumeration, which is the method of the other branches of the Census Bureau, its removal to the Public Health Service would not break any important existing organic connections. It would do much to concentrate work in this field. And if some informal connection with Army and Navy through an advisory committee on statistical research were made there would result a desirable and fruitful unification of this particular aspect of public health administration.

Scientific Investigations.—Closely related to the collection and use of vital statistics is the function of scientific research in the field of public health. The justification for national exercise of this function is found not only in the Mill theory of centralization of knowledge as a service to local administration, but also in the immediate use of scientific investigations for the operation of the regular national functions such as quarantine. The protection of water and food supplies and the quarantine against communicable diseases constantly suggest problems of a scientific nature which call for field experiments and laboratory investigations. The collection of vital statistics suggests statistical, epidemiological investigations into certain diseases. For such investigations a union of actual administrative operation and scientific study is a distinct advantage. At times field experiment, laboratory research, and statistical study are all united upon a single disease problem. It is not surprising, therefore, that the federal health agencies have developed the function of scientific investigation in its broadest sense.

Army and Navy.—The pioneer agency in this work has undoubtedly been the Army Medical Department. We have already noted how that bureau shortly after the Civil War began to assemble at Washington officers equipped for statistical and laboratory investigations so that by the end of the century the personnel, equipment, and tradition for scientific research were sufficient for the execution of the

brilliant yellow fever experiments in Cuba.* With the laboratory equipment of the Army Medical Museum, with the Surgeon-General's Library, with excellent statistical records, with the trained personnel and opportunities for important field investigations into the efficacy of specific sanitary methods, the Army Medical Department and, to less extent, the Navy Medical Bureau, are still among the most important medical and sanitary research agencies in the central administration.

The National Board of Health.—The national civil agency earliest to engage in sanitary research was the National Board of Health. We have already described its progressive activity in quarantine and vital statistics. Despite preoccupation with immediate tasks the principal interest of its founders and members was probably in pushing forward and making more widely applicable the important scientific discoveries of the period. The Act creating the Board expressed this interest in the following general grant of authority:

> to obtain information upon all matters affecting the public health; to advise the Executives of the several States on all questions submitted by them, or whenever, in the opinion of the Board, such advice may tend to the preservation and improvement of the public health (20 U. S. Stat. L. 484).

One of the Board's first acts after its organization in 1879 was the creation of a commission of yellow fever experts, including the ablest available men in the field, which proceeded to Havana, Cuba, to institute investigations into the cause of that disease. Although the results of its efforts were negative, they were of distinct value in clearing the ground for the later positive findings of the Army.

Instead of building up its own staff and equipment for scientific investigation the Board adopted the policy of stimulation and financial aid to scientists already established

* See Chapter V.

in some special field and competent to pursue research along some particular line under the Board's patronage. Most of the eminent sanitary scientists of the day undertook work under these auspices; its bulletins and annual reports became a principal agency for the publication of their results. Although most of the investigations had little immediate value, they represented in method and in spirit a remarkable stimulation of activity in the problems of preventive medicine.[15] In addition to laboratory studies the Board encouraged and in some cases carried on directly sanitary surveys of localities. At its first meeting it provided for the printing and distribution of a schedule of questions to guide municipalities in carrying out such projects.

Although the National Academy of Science and the American Public Health Association strongly indorsed the research program of the Board, Congress was not appreciative of its significance. An accusation was made of extravagant expenditure of funds for such purposes. Since the total expenditures for research during the three active years of the Board did not total more than $30,000, the charge must have been unfounded. The economy of aiding investigations rather than conducting them directly is described in the Annual Report for 1883 (pp. 55-56):

> The Board was able to accomplish so much at so trifling an expenditure of the public funds by reason of the fact that nearly all the eminent scientists who contributed to these investigations did not receive anything for their personal services, the only charge being for the pay of assistants and for other necessary working expenses of such original investigations.

The Public Health Service.—After the demise of the National Board the Marine Hospital Service, while carrying forward its predecessor's quarantine work, did not in any sense continue its general program of public health research. The beginnings of scientific investigation by the Service grew rather out of the need for such work in connection with the epidemic diseases of yellow fever and cholera. As early

as 1888 we find established without any specific Congressional warrant a bacteriological laboratory at the New York marine hospital.[16] It dealt with quarantine disease problems and conducted investigations into the effectiveness of quarantine disinfection methods. Not long afterward we read of laboratory studies of pneumonia (in connection with a local epidemic), of tuberculosis, and of malaria. In 1891 the Service laboratory was moved to Washington, where it occupied crowded quarters in the Butler Building. In its new location it was frankly used for general studies of epidemic diseases. Congress in 1901 gave it legal recognition by authorizing the construction of new quarters (31 U. S. Stat. L. 1137). Before the building was finished the laboratory had grown so considerably that funds had to be appropriated for its enlargement.

In 1902 Congress assigned to the Hygienic Laboratory, as it came to be called, the routine task of making the necessary tests required under the Act regulating viruses, vaccines, and sera (32 U. S. Stat. L. 728). At the same time it provided for the creation of an advisory laboratory board to consist of an officer appointed from the Army Medical Corps, one from the Naval Medical Corps, a scientist from the Department of Agriculture, and, in addition, five persons from civil life not connected with the national governmental service who, it was provided, should be "skilled in laboratory work in relation to the public health." The first civil appointees were Professors William H. Welch, Simon Flexner, William T. Sedgwick, Victor C. Vaughan, and F. F. Westbrook. At this time also there was organized in the Bureau of the Public Health Service a Division of Scientific Research. Although the Laboratory now had a separate director and a semi-autonomous organization, the new Division maintained, and has continued to maintain, a close relation to it. From 1902 on, the scientific research work of the Service developed rapidly. A scientific library was organized, a course of instruction in the Laboratory for Service officers was

instituted, and a separate series of laboratory bulletins was published. The regular weekly *Public Health Reports* contained an increasing number of papers describing current statistical, field, or laboratory investigations carried on by officers of the Service and others.

In 1912 Congress again recognized these developing scientific interests by an Act (37 U. S. Stat. L. 309) specifically authorizing the Service to "study and investigate the diseases of man and conditions influencing the propagation and spread thereof. . . . " From this time on the work in Washington and in the field expanded in such a way that it has come to cover all diseases of significance in the field of public health. Notable work has been carried on in malaria, stream pollution, leprosy, Rocky Mountain spotted fever, pellagra, hookworm, trachoma, the plague, child hygiene, mental diseases, and industrial diseases. In addition to the Washington laboratories, a leprosy investigation station has been erected in Hawaii, plague laboratories for both routine and research work have been maintained at several places, and after authorization from Congress in 1911, the marine hospitals have been opened to admit patients for scientific study.[17] These have been used mainly for field investigations of pellagra and malaria. In this way the Public Health Service has become an important and useful agency for the conduct of scientific investigations into the general problems of preventive medicine. Its scientific personnel and equipment have been used as an aid to states and localities in helping them to deal with new or unfamiliar diseases.

Any attempt to enumerate the number or variety of ways in which the Service is called upon for such consultation and advice would be tedious. An example or two will reveal the kind of national activity represented. For several years, beginning in 1917, the rural population of a county in Utah suffered from a disease causing enlargement of glands, prostration, and a fever lasting from three to six weeks. The

state health commissioner requested the Surgeon-General of the Public Health Service to detail an officer to the locality for an investigation of the malady. This was done, a laboratory was set up, and a thorough investigation conducted. The disease, found to be caused or transmitted presumably by a fly bite, was identified as deer-fly fever.[18] The governors of five states in the Missouri River watershed called upon the Public Health Service to assist a commission in conducting a sanitary survey of the watershed. From Minnesota came a request for a trachoma study among the Indians. The authorities of Elizabeth, New Jersey, made a request that the Service examine suspected cases of beriberi. New York State called for the Service's aid in conducting an experiment in inoculating institutional patients with pneumonia vaccine. From California aid was requested in handling an epidemic of botulism and for suggesting methods of preventing future outbreaks. From Boston coöperation was asked in making tests of dried milk for infant feeding. From Oregon came an invitation to lead in a state survey of delinquency, dependency, and feeble-mindedness.[19] For these investigations the federal Health Service is plainly better equipped than many state and local bodies. Such centralization of personnel and equipment for scientific investigation is a practical arrangement serving the interests both of economy and of intelligent local handling of emergency disease situations.

A slightly different type of field investigation has been the series of state and city health administration studies instituted by the Service in 1913. These surveys, carried on in response to local requests, deal not only with technical matters of administration which interest the state and local administrators themselves, but also involve appraisal of general administrative structure and the amount of local appropriations. The study of the health organization of the state of Illinois was, for instance, made upon the invitation of the Illinois Efficiency and Economy Commission charged

with drafting a plan for a comprehensive reorganization of the entire state administrative structure. The Chicago study of 1915, likewise, was made as a part of a general survey under the direction of the Efficiency Division of the Chicago Civil Service Commission. The study of the Memphis health agencies (1921) was requested by a reform mayor pledged to improve the local health organization which had fallen to low estate. The Richmond, Indiana, survey (1915) was requested by the city officials and civic organizations on account of the community's reputation for having a greater number of cases of tuberculosis than other cities of its size.

Altogether eleven states and nine cities have been surveyed by the Service. In most cases reorganization in administrative structure, new legislation, and, occasionally, enlarged appropriations have been recommended. In many cases, notably in Maryland, the recommendations have borne fruit. In addition to these formal reports we read of Service officers with experience in survey work being called to such states as Massachusetts and Kansas to confer with health and administrative commissions engaged in drawing up plans for general administrative organization.* In 1920-21 a survey of the health services in the eighty-three largest cities in the United States was made by a committee of the American Public Health Association. In response to a general desire that the survey be made continuous, the Public Health Service regularized its work in this field by establishing (in 1923) an Office of Administrative Health Practice located in connection with the School of Hygiene and Public Health of Johns Hopkins University. The Office is carrying on periodic resurveys of local health organization and

* The state surveys are as follows: Maryland, 1914; Minnesota, 1914; West Virginia, 1915; Washington, 1915; Illinois, 1915; North Dakota, 1915; Nevada, 1915; Florida, 1916; Nebraska, 1916; Colorado, 1916; New Mexico, 1918. The city surveys have been as follows: Baltimore, Toledo, Chicago, Richmond (Ind.), Birmingham (Ala.), Youngstown (Ohio), Springfield (Ohio), Quincy (Ill.), Memphis (Tenn.).

serves, in addition, as "a clearing house for the exchange of ideas and a helpful service to health officials contemplating some change in the organization or an expansion of activities of their departments." [20]

Department of Agriculture.—As in the case of the Public Health Service the health agencies of the Department of Agriculture deal with operating problems which require scientific investigation. The laboratories of the Bureau of Chemistry have as a major part of their work the routine examinations of foods and drugs used in the enforcement of the Act. In addition, the Bureau laboratories carry on researches into the production and preparation of foods, including poultry, eggs, and fish. These investigations are of indirect value in food regulation. So also the Bureau of Animal Industry carries on in addition to its routine work extensive scientific investigations into the causes, prevention, and cure of animal diseases. Some of these investigations relate directly to the fitness of meat for human consumption.*

The Home Economics Bureau of the Department carries on investigations into problems of nutrition and food values as well as the best methods of cooking and preserving. Although much of the work of this unit has to do with the economic rather than the health values of nutrition, both factors are closely related in the problem of home hygiene among the poor. Not only does it prosecute researches in its own laboratories at Washington, but along with other scientific bureaus in the Department it keeps in close touch with the nutritional investigations at the state agricultural experiment stations. These state research agencies are operated with the aid of federal funds and under the general

* The Bureau, especially during the decade 1884-95 when Dr. Theobald Smith was in charge of its research work, made a distinguished record in scientific investigation of animal diseases, some of the results of which had a direct bearing on human health. The transmission of disease by insects, the effect of bovine tuberculosis upon human beings, rabies, trichinosis, anthrax, and botulism have all been exhaustively studied by the Bureau's experts.

supervision of the Office of Experiment Stations within which the work of home economics study was carried on until the separate organization of the Bureau in 1923 (from 1915 to 1923 the Office of Experiment Stations and Home Economics Office were subdivisions of the States Relations Service).

The Bureau of Entomology possesses regulatory powers over matters not at all affecting the public health. But in connection with its quarantine against insect pests it carries on extensive researches into the relation of insect to plant and animal life. Since it has been discovered that mosquitoes, lice, and fleas serve as carriers of human diseases the Bureau has been called upon more than once to use its expert research knowledge and personnel in coöperation with the Public Health Service for carrying on investigations as to the biology of these insect disease carriers and the methods of effective control.

Other scientific bureaus in the Department engage from time to time upon research work of value to public health. The Bureau of Plant Industry, for instance, has worked with the Bureau of Chemistry in investigating the harmful results of spraying and washes upon edible vegetables. The newly established Dairying Bureau, although mainly concerned with encouraging milk production, makes laboratory studies of pasteurization, compiles milk ordinances, and carries on field studies of dairy sanitation. In general it may be concluded that in the Department of Agriculture there is a highly developed group of agencies carrying on field and laboratory research into animal, insect, and plant diseases with the main view of increasing food production and food quality. Such investigation may at times, however, be directed toward problems having to do with the relation of foods to human health and often yield indirect results of great value to medical and public health research.[21]

Department of Labor and Other Agencies.—The Children's Bureau in the Department of Labor is primarily a

research and information agency having to do with the health and general welfare of children and mothers. At the time of its establishment in 1912 the need for a national center and source of information as well as for a research agency in problems of juvenile dependency, child labor, child recreation, child health and training, was stressed.[22] The legislation and administration of the states in these matters varied greatly, and it was believed that a national clearing house would result in substantial improvement. One of the first and most important tasks assumed by the Bureau was the investigation of the causes and prevalence of infant mortality. The method adopted was that of a social-statistical survey in selected cities where the Bureau engaged in the personal collection of facts regarding the family, social, industrial, and economic factors involved in infant deaths. Investigations in eight cities were made and the results printed in a series of reports. A Child Hygiene Division was established in the Bureau which has carried on studies into the incidence of the medical causes of infant and maternal deaths. Rural surveys have also been made to determine the adequacy of maternal and infant care in such areas. This Bureau thus has as one of its principal tasks scientific research in an important branch of the public health field.

Other bureaus in the Department of Labor carry on, as a part of their work, scientific research in specialized fields of health. The main function of the Women's Bureau is that of dealing with questions relative to the employment of women. Since its foundation it has been preoccupied mainly with problems of wages, hours, and working conditions, with little special attention to occupational health problems. Although it does not prosecute studies in industrial hygiene directly it does publish the researches of others in the field. The Bureau of Labor Statistics also, although it is mainly concerned with wages, hours, and general working conditions, frequently serves as a medium for publishing studies of industrial diseases and hygiene.

The Bureau of Mines, now in the Department of Commerce, dealing with the whole range of problems in the mining industry, carries on its own investigation with regard to the health hazards of miners as well as publishing the researches of others. For supervision of these health investigations an officer is detailed to it from the Public Health Service.

The Interdepartmental Social Hygiene Board.—One of the most recent federal agencies, the Interdepartmental Social Hygiene Board, which as we have seen (in Chapter VI) was set up during 1918-19 to coördinate the war-time governmental social hygiene activities, was also given appropriations for scientific investigation into the treatment, cure, and prevention of venereal diseases. The method by which this work was carried on represents a return to that initiated by a previous and also short-lived federal agency, the National Board of Health, forty years earlier. The Act of July 11, 1918, creating the Board, appropriated a sum of money—

> which shall be paid to such universities, colleges, or other suitable institutions as in the judgment of the . . . Board are qualified for scientific research for the purpose of discovering . . . more effective medical measures in the prevention and treatment of venereal diseases [and another sum to such institutions as in the judgment of the Board] are qualified for scientific research for the purpose of discovering and developing more effective educational measures in the prevention of venereal diseases and for the purpose of sociological and psychological research related thereto.

The appropriations for medical research were made by Congress for the three fiscal years beginning with 1918-19, and totaled $285,000. The educational research fund totaled $850,000 for the same period. Both appropriations were then cut off. During the three-year period the Board received applications for aid and made individual allotments to twenty-five scientific institutions. The results of such

financial aid cannot be easily measured. As was said in the 1922 report:

> Official judgment upon the value of the scientific discoveries that have come and are yet to come from these medical researches can be made only after the accumulation of convincing scientific, clinical experience establishing such values. This is a matter of years. Nevertheless, a record of the results achieved through these researches up to the present time gives every reason to expect that a very definite contribution has been made for the better defense of human health and life against gonorrhœa, syphilis, and chancroid.
>
> The program of medical research stimulated by the United States Interdepartmental Social Hygiene Board has stimulated a very much larger degree of scientific interest in these diseases than ever before. The investigation of the venereal diseases has been made respectable. Several hundred scientific men and women have been led to devote their technical skill and their medical knowledge to the problems of treatment and prevention. . . . These activities will not terminate with the withdrawal of governmental support, even though there will be an immediate reduction in research activities.

Only a small part of the fund for educational investigations was spent for actual research work. There was a grant to a group of psychologists for the study of the effect upon the audience of certain types of educational material such as motion pictures, another grant for a sociological study of the family of the syphilitic, one for the preparation of certain types of motion pictures, and one for the evaluation of social hygiene literature. But a large part of the grant was distributed as an aid to college and normal school departments of hygiene under a very broad construction of the purposes for which the money was appropriated by Congress. This phase of the Board's activities is thus more properly included in aid to states for health education and is dealt with later under that topic.

The general method of carrying on research by the employment of existing facilities throughout the country rather than by instituting separate governmental facilities is well

worth serious study. Through the use of such machinery economical use of funds and coördination of research effort should result. Unfortunately the permanent results of the particular method cannot be observed in this case, owing to the fact that it was maintained for less than three years.

Summary.—The foregoing survey of the sanitary research activities of the federal government indicates a rather complex organization of agencies. In the field of food research, child hygiene, and industrial hygiene, there is likelihood of duplication. But duplication of research work is not always an evil. Much labor from various sources is carried on before science yields results in invention. Nor is duplication here so difficult to avoid as in other kinds of health activity. There are several examples where practical and informal coöperation is obtained simply by agreement on plans for specific projects. Still it is undoubtedly true that if the health agencies were united the research activities would as a result be more closely coördinated. Since unification itself would not completely eliminate duplication it might be well worth while to create for medical and health research as a whole what is now in existence for the Hygienic Laboratory: *viz.*, an advisory council partly *ex officio* and partly composed of scientists outside of the government service which could consider in a broad and statesmanlike way the whole field, directing alike the energies of public and of private scientific investigation. The National Research Council might serve in such a capacity. Or such an agency might develop among the coördinating boards of the Budget Bureau. The value of a unified program of national governmental research in the field of public health can easily be overemphasized. Yet it would not be very difficult to organize; and it might add considerably to the effectiveness of the service rendered by the national government to the states.

Popular Health Education.—An essential part of the federal health activity in the field of statistics and scientific

investigation has been that of acting as a central clearing house for the exchange and distribution of information useful to state and local health officers. In this sense health education is a pervasive feature of the national health organization. Properly, however, popular health education refers to the function of reaching directly parts of or all of the general population with information or training designed to enable persons to coöperate in the prevention of disease and to promote personal hygiene and general health.*

Such direct education of the public regarding disease has become in recent years a regular and important part of the prevention campaign directed by health agencies. The pioneers in this aspect of public health administration in most cases have been the volunteer, semiprivate health associations. In many cases they remain the most important health instruction agents at work in the field. But more or less sporadically the successful, easy, or popular types of health instruction have been carried over into the programs of the regular state and local health organizations. In the case of school health training the government has most completely assumed the task, although its division between local educational and health authorities has resulted in no little confusion and duplication.

* Health education has other meanings which are not included in this description. The actual education of health officers and nurses is treated in a later chapter. Another type of educational work may more exactly be called publicity work. This type of information is designed to influence the public in favor of moral and financial support for specific or general health activities. Such publicity is incidental to practically all public administrative functions. It can best be carried on by private associations in favor of governmental agencies rather than by governmental agencies themselves. Direct propaganda in favor of support of one's own organization is frowned upon in Congressional circles. No group of administrators convinced of the value of its work, however, is likely to be quite free from such publicity, especially of an indirect sort. The national health agencies have at times done valuable work for state and local health organizations by sowing seeds of publicity favorable to such work among the general population.

Pre-War Development.—The national health agencies have been among the last of the official organizations to enter this field. When faced by tasks of direct health administration, as in the anti-plague campaign in San Francisco, the Public Health Service has carried on extensive popular instruction with regard to rats and the plague. But not until about 1909 did the Service take any steps toward occupying the field of general health education. In that year the Surgeon-General in his *Annual Report* (p. 61) discussing a proposed anti-hookworm campaign throughout the rural South declared it to be the duty of the federal government to disseminate information as a part of such a campaign. In the following year pamphlets intended for lay readers describing the common diseases and the means of their prevention began to appear as reprints of and supplements to the weekly *Public Health Reports.* In the 1914 *Annual Report* (p. 307) it was announced that such pamphlets were being planned for each disease or health subject. The publication and reissue of these pamphlets, with little variation as to form, little attention to attractiveness, and no special machinery for stimulating their distribution have been continued to the present. During the years before the war the number of popular health educational lectures by Service officers increased. And as an aid in such work lantern slide sets were prepared. In 1916 motion pictures began to be used for similar purposes. Until the end of the war, however, no special staff organization was created to undertake health education work; nor was it anything but an incidental Service activity.

Meanwhile the other federal health bureaus had undertaken such work. Shortly after its creation in 1912 the Children's Bureau published scientific but popularly written pamphlets for mothers on pre-natal, infant, and child care. Because of the unique need for them they have been more widely used for circulation to the general population than almost any other health pamphlet of governmental origin.

The Children's Bureau also maintained until recently the Child Welfare Special, an automobile traveling exhibit used in conducting child health conferences in remote rural sections of the country. In other fields of health instruction for mothers and children private agencies such as the Child Health Association and constituent organizations have developed exhibits and other educational materials. These the Children's Bureau has been content to recommend for use rather than to duplicate.

In the Bureau of Education there was created in 1911 a Division of School Hygiene and Sanitation. For years it has struggled along with practically one full-time staff officer and without equipment or funds for extensive work either of investigation, demonstration, or education in the field of school hygiene. Within its limitations, however, it has served as a clearing house in this fundamental and important field of popular health education.

Of all the Cabinet administrative units the Department of Agriculture had before the war the most extensive, elaborate, and complete organization and staff for carrying on non-school education for the general population. Through its extensive publications separately printed and exhibiting unusual variety of form and substance, through motion pictures, exhibits, and other means of visual instruction made in its own plant, through coöperative work with state agricultural colleges, and the county agent system of field educators the Department has been organized and equipped for an important program of adult education. This machinery has not been used to any great extent by the food-regulation agencies. But recently the Bureau of Home Economics (before 1923 the Home Economics Office) included in its program of research and education the problems of nutrition and food health values. With such material it has used the Departmental field and staff machinery in reaching farm homes with scientific knowledge. Health instruction is only a part, and rather a small part,

however, of the educational program of the Bureau, the main emphasis being upon the economic aspects of food, clothing, and household problems.[23]

Social Hygiene Education.—A survey of federal administration at the time the United States entered the war would thus indicate some work being done directly and more being done indirectly for the health instruction of mothers and housewives, of children in schools, and of the general population. On the whole it was not an important part of the activity of any of the national health agencies. The war period saw the rapid growth of health education directed especially toward the suppression of venereal diseases. The elaborate organization and operations of the War and Navy Departments and the Commissions on Training Camp Activities in this field have already been described. Civilians, previously associated with semipublic associations where social hygiene educational literature of all kinds had been developed, were drafted into the staffs of these war-time social hygiene agencies including also the new Division of Venereal Diseases of the Public Health Service. They prepared and actively circulated attractive, novel educational pamphlets and lantern slides, stereomotograph exhibits, card exhibits, posters, motion pictures, and lectures for use with soldiers and sailors in the war services.

At the close of the war not only was much of this material saved and used for peace purposes among the military and naval personnel, but the Venereal Disease Division of the Public Health Service adapted and developed almost as ambitious a program for its permanent use among the civil population. A series of pamphlets was prepared for use with all types of persons. Motion pictures were adapted for civilian use. Placards regarding venereal diseases, combining medical and educational features, were distributed universally and posted through the agency of the Railroad Administration in appropriate places. The Washington staff organization established direct contacts with large in-

dustries and important groups in the population such as trade unions, colleges, and school teachers, through whom active educational work was carried on.

Coöperative relations were established with the School Hygiene Division of the Bureau of Education and considerable work developed in the substantial task of incorporating sex education in the normal academic teaching of biology, hygiene, etc. Such work requires a type of expert knowledge in pedagogy, hygiene, and psychology which the usual state or local health department does not have at its command. The central agencies in advising, warning, and producing standard materials for educational work were, therefore, of unique value. The whole episode of capitalizing the war expansion of the health attack upon venereal diseases by transforming it into a permanent peace-time phase of health work and school activity was, so far as the educational features are concerned, an able piece of administrative leadership. It no doubt resulted mainly from the infusion into governmental services of new personnel accustomed to the more radical and effective methods of private health organizations and who for the time, at least, broke through the administrative routine and the orthodox peace-time methods of governmental health education.

It might be said that in the specialized field of social hygiene the Public Health Service was engaged directly in national popular health education. This was, however, only temporary. The Venereal Disease Division in addition to its function as a center of social hygiene educational effort was the central supervising agency for a system of federal money aid and was engaged in stimulating state health agencies to adopt and prosecute a vigorous and intelligent venereal disease program. The direction of effort was soon turned, therefore, to indirect rather than to direct popular health education. In this task the central organization adopted unusual methods. A popular pamphlet was issued in one case by the millions announcing the existence of a

series of pamphlets on social hygiene for various groups (men, boys, girls, mothers, etc.); when requests came in to Washington they were referred to the proper state authorities with the suggestion that they be supplied with appropriate pamphlets. The result was a rapid development of state activity in response to the federally stimulated demand. For a period the national organization acted indirectly as a dispensing agency for the various types of educational material. Since the Service was unable, however, because of federal statutes and regulations, to serve efficiently in this capacity, the American Social Hygiene Association, the principal private social hygiene organization, became the selling agency to the states. The gradual reduction of appropriations and personnel led the Division greatly to curtail its direct work. It remained and still remains, however, a real central clearing house and staff agency in the field of social hygiene education.

The Section on Public Health Education.—It was partially the work of the Venereal Disease Division which led to the organization in the Public Health Service of a separate staff agency for general popular health education. At any rate there was created in April, 1919, a Section on Public Health Education with an officer at its head experienced as a local administrator in the specialized field of health education. The purposes and hopes of the new unit were set forth in the Surgeon-General's *Report* (p. 213) of that year as follows:

> The Section . . . aims to constitute itself a national center or clearing house on the subject of public health education. . . . This will involve the preparation of press bulletins and the utilization of stereomats and plates, the publication of lithographed health posters, the organization of a lecture service, the administration of a loan library of stereopticon slides and moving pictures, the preparation and organization of traveling exhibits, the maintenance of a public health information bureau, and the employment of such other educational methods as the circumstances may indicate.

It cannot be said that the Section has been able to carry out this program in a complete way. The post-war drive for government economy with its curtailment of appropriations and personnel led to the abandonment of ambitious plans such as these. As an example of its effects there may be cited the attempt on the part of the Joint Congressional Committee on Printing in the name of retrenchment to interfere in a most improper, stupid, and reckless way with administrative detail. An old law forbidding the distribution of more than one thousand copies of any government publication or more than fifty copies to any one person, with the proviso that Committee permission might be obtained for distribution above these limits, was resurrected and enforced. Quarterly reports to the Committee were to be made of actual publication totals issued. Although later relaxed, this assumption of a chief clerk's duties by a busy committee of politicians, for the most part ignorant of the values and unsympathetic with the purposes of popular non-school instruction, was a discouraging episode in the plans for health education. The slides and motion pictures already developed before the war could not be kept in repair and in 1923 the National Health Council, the most important national clearing house of private health agencies, took over the central supervision and distribution of information regarding health films. With the advent of the radio, broadcasting was used by the Service for educational purposes. Weekly health radio talks have proved to be a popular device.[24] But as yet the Educational Section has not become an important national staff agency for health instruction.

Summary.—The problem of how much the federal health administration should do in the field of popular health education should be faced frankly and a policy outlined. To attempt direct operation of an educational health program is probably justified only in a strategic situation such as is offered by a national influenza epidemic or in the unusual

dangers of spread of venereal disease during and at the end of a war. Since instruction to be effective must in many of its aspects be especially adapted to different groups of people it should be directed from a point fairly close to the persons instructed. There is usually much waste in a general, standardized program where there is little opportunity for personal contacts and the more fundamental types of instruction. On the other hand, state and local health agencies have not and are not likely to have as good facilities for research in methods of health education and the preparation of the most suitable educational materials as are afforded by a central agency. The national health organization, therefore, has its proper place in serving the smaller units by building up a health education research and clearing house agency.

The only useful alternative to the development of important health education staff units in the national government is the unified and elaborate organization of this function in semipublic agencies such as the National Health Council, the American Child Hygiene Association, and the American Social Hygiene Association. The test of success of such a semipublic clearing house is whether the state and local health organizations are actually using it for clearing house purposes. The official national agency can often promote such a relationship rather than absorb or duplicate the work of the private national association. The question is one which it would seem is best solved *ad hoc*.

In this connection the whole question of the relation of governmental to private agencies is raised. For it is here that most duplication and overlapping are likely to occur. Should the governmental attitude be one of gradually absorbing the successful work of such organizations? Probably not. An association existing on an endowment or supported by large personal contributions represents an organized asset for health which could not so easily be

obtained from public taxation and appropriating bodies. Often the semiprivate association is able to maintain a personnel and a continuity of policy and program not possible in the case of the government. The only important drawback to such supplementary organizations is their tendency at times to work at cross purposes with, and to compete with, the governmental establishment. The wise solution from the viewpoint of political science is so to adapt law and administrative rules that these organizations can be coördinated as closely as possible with the public administrative units. There have been cases of officers of national associations serving as liaison officers in government offices and of public officials occupying desks in a similar capacity in the offices of these associations. This is a sound arrangement. Legal and traditional obstacles to such practical and economical coöperation should be minimized. It should be the aim and effort of administrators public and private to promote such interwoven relationships. Health education as a central function would in a wise plan be worked out into a varied pattern which would result in furnishing the staff service and leadership needed by state and local health administrators. As the prevention of disease by the promotion of better individual health habits becomes, as it now promises to become, a major health activity, it is important that sporadic and uncoördinated work of an incidental sort give way to expert, unified, and efficient administration of the function of health education.[25]

CHAPTER XIV

FEDERAL STIMULATION AND AID

Mill's theory that the central government should act as a clearing house of information for local areas carries with it the implication that the larger unit should serve as an agency of stimulation to more progressive activity on the part of the smaller units. In the field of public health, at least, the one has led quite naturally to the other, so that at times it is almost impossible to classify particular services as clearing house or stimulation activities. Having dealt with the statistical, investigative, research, and educational work of the federal health services as the former, however, we shall now deal with the activities which have more directly the purpose of stimulation and aid. These are periodical or special conferences of health officials, the creation of advisory standards, the establishment of comparative scores for efficiency, special field surveys and demonstrations in selected local areas, and finally general financial and personnel aid to the states, called federal aid or grants-in-aid. Together these activities have been designated as the new type of coöperative federalism.

Periodic Conferences and Advisory Standards.—Where national and state officials deal with the same administrative problems, a minimum of voluntary coöperation is usually secured by means of periodic conferences where common difficulties may be discussed. Aside from promoting professional acquaintanceship and serving as an occasion for the general exchange of information, such conferences are the means of deliberating upon, and drawing up definite plans for, joint action, of adopting advisory minimum stand-

ards for their guidance, and of suggesting and criticizing proposals for national health legislation or federal rules and regulations affecting state activities. These meetings might even be thought of as deliberative or ordinance-making assemblies within the limited field of administrative discretion left by statute to health authorities.

Of such nature was the series of conferences of state and local quarantine officials held for a considerable period before the creation of any federal health agency. These conferences attempted, without much visible success, to arrive at more uniformity in quarantine practice. After the creation of a national quarantine bureau occasional conferences were called to advise upon national quarantine regulations or to deliberate upon immediate policy in actual epidemics. In the case of the Florida yellow fever epidemic in 1888 and the plague invasion of San Francisco in 1900 quarantine conferences served as effective agencies for supporting the national policy.[1]

The Act of 1902, which expanded and renamed the Marine Hospital Service, provided that the Surgeon-General should call an annual conference of the state and territorial health officers. Regular meetings have since been held, usually at Washington, lasting for a two-day period, with the Public Health Service in charge of the program and the Surgeon-General in the chair.[2] These conferences have served effectively as a method of coöperation between the more progressive state officials and the federal Service. They have set up minimum standards for health procedure, deliberated upon and promoted health programs initiated by the Service or by its own continuing committees involving voluntary state and federal coöperation, and have acted as a means of general stimulation of state and federal health work in selected lines. In earlier chapters their action in promoting uniform and complete morbidity statistics, standards of water purity, stream pollution, and other sanitary standards has been noted. Many of the important

problems of the last generation have received the advantage of the deliberations of this informal legislature of public health administrators.

One of the most striking instances of the use of the periodic conference to establish voluntary uniformity was that of the adoption of the standard milk program. For years the effectiveness of milk regulation by states and cities has been hindered by conflicts of opinion between agricultural and health experts both in the national and in state administrations. A diversity of laws and practices has resulted. With the growth of the area of milk shipments the variety of sanitary regulation has become an interstate problem. In order to meet this situation the Public Health Service, in close coöperation with the Alabama State Board of Health and after a thorough investigation, drew up a standard milk control program in 1923 which was promptly put into operation in that state. Through the suggestion and advice of the Service, it had been adopted in nine other states and one hundred cities by 1926.

At the 1925 Conference of the State and Territorial Health Officers (pp. 25-34) the Service presented its working plan and suggested the appointment of a committee to study it in actual operation and report a year later. Such a committee was chosen, including in its membership representatives of the interested bureaus in the Department of Agriculture. At the Conference, May 25, 1926, it reported favorably upon the program with some minor textual alterations. As amended the standard program was approved by the Conference and officially recommended for adoption to all the states and cities. The plan has four main parts: (1) a model and practicable milk-control statute for states and an ordinance for cities, (2) state encouragement of cities to adopt the milk control ordinance, (3) machinery to secure enforcement of laws and ordinances after their adoption, and (4) periodic measurement of the results of en-

forcement. The Service is not only actively promoting the adoption of the plan in all the states but under its provisions is to participate in the periodic grading of the milk standards of the cities. The milk-control program thus illustrates the combined use of periodic conferences, advisory standards, and comparative ratings as means of national stimulation to state and local administration in a particular field.

With a purpose and method almost identical with that of the annual Conference of State and Territorial Health Offices the National Association of Food, Dairy, and Drug Officials holds periodic conferences. Although not authorized by federal law, as in the case of the Public Health Service conferences, the food and drug, dairy, and meat-inspection officials of the Department of Agriculture take a leading part in the work of this Association. The state, local, and federal officials have done much through their meetings and committees to adopt common standards and methods for testing foods and drugs.

The Children's Bureau has used in a somewhat different way the conference machinery for stimulation purposes. There had not been any regular conferences between the state and the federal officials in this field until their inauguration by the Maternity and Infancy Division which was created to carry out the provisions of the Sheppard-Towner Act. But during 1918 the Bureau carried through a stimulation program which it called "Children's Year." Coming as it did in the midst of war activity, it took on many of the characteristics of a "drive" and used the machinery of women's organizations temporarily developed for war purposes in the states and localities. These women's committees, or councils, were organized to support improvements in child welfare work, especially to promote campaigns for weighing and measuring pre-school children, and for providing health centers and community or public health nurses. During the summer vacation there was a "recreation drive";

in the fall, a "back-to-school-drive." As the climax to the year's work a conference lasting several days was held in Washington at which a distinguished group of American and European child welfare experts spoke. On the basis of its addresses and discussions a committee drew up a set of minimum standards for child welfare. The health of mothers, infants, and children formed an important section of this code. Then followed a series of regional conferences at nine principal American cities at which the "Washington standards" were discussed.[3] On the basis of profitable criticisms and suggestions made at the regional conferences a follow-up committee revised the tentative code. In this way, by prolonged contact between specialists and groups of child welfare field workers, a set of minimum standards was matured which, officially sponsored as the Children's Bureau code, could be used to stimulate laggard states and localities.[4]

The effectiveness of such standards as means of stimulation is almost impossible to measure. Since they are purely voluntary and impose uniformity upon no locality they can, at any rate, do little harm. The theoretical objection that the minimum might become the maximum accomplishment and result in a leveling down as well as leveling up does not seem to have appeared in actual practice. And it is probable that the existence of certain authoritatively designated minimum levels serves as a lever of some value to the health workers in localities who are struggling against considerable inertia for general improvement in matters of child health and welfare. Its particular effects as a stimulation device have never been isolated for purposes of concrete measurement and appraisal.

Comparative Scores.—Closely related to advisory minimum standards is the device of a comparative score of accomplishment in certain activities measured by some scale or set of standards. Such a rating is given by a central agency as a means of utilizing local pride to raise laggard

states or localities to higher levels of efficiency. As a piece of machinery applicable to the "welfare functions" of government it was first made prominent by its use at the hands of the Russell Sage Foundation in scoring state educational systems. From time to time a general scoring system has been proposed for public health work, notably for scoring municipal health departments.[5] The only actual attempt to put it into practice in an important way by an official national agency, however, was made by the Venereal Disease Division of the Public Health Service during a short period following the war.

One of the early publications of this Division listed by cities of origin the comparative percentage of men received into the Army with venereal diseases in the second million of the draft.[6] The pamphlet aroused widespread interest and not a little criticism from localities where the comparative showing was unfavorable. As a means of capitalizing this interest for constructive promotion of local social hygiene activity the Service prepared a model program for municipal venereal disease control (really a revision of the program developed by all the war agencies during 1917-18) and assigned a numerical score to each item which with weightings made a total of one thousand possible points. The venereal disease field officers located in each state under the Chamberlain-Kahn Act were assigned to the task of making a periodical rating of the cities within their areas, municipal officials were furnished copies of the model program and were warned in advance that the ratings would be made. The first publication of comparative scores again aroused great interest, especially among those cities near the bottom and near the top of the scale.[7] From many places came the criticism that the rating system was subjective and therefore really unreliable as an index of local efficiency. Necessarily the ratings were made more upon legal and administrative provisions for work than upon the actual results of administrative accomplishment. So also

the assignment of weights to the various items was in many cases a subject for rational disagreement. And in some matters, no doubt, the personal judgment of the scoring official was a considerable factor. The partial unreliability of the "measuring stick" was the probable cause of its discontinuance after this first publication of the comparative scoring by the Service. That it did in many cases have the stimulating effect aimed at, however, is indicated by the following extracts from some of the unpublished letters received by the Venereal Disease Division after the publication of the first rating:

From State Health Officer:

It is our understanding that ———'s [a large city] rating is about 34th and we believe this information is having a good effect rather than a bad one.

From V. D. officer in a Southwestern state:

It appears that this low rating received by ——— is already having a salutary effect in arousing interest in a free clinic.

From mayor of a large western city:

From this report I saw that ——— is next to the top. It is too bad we do not occupy first place. If there is anything we can do to get in first place we will do it. . . . Be free to make suggestions to us from time to time.

From a Maryland city mayor:

May I ask whether it would be possible to receive a list of the apparent delinquencies in this city, so that an effort can be made to improve them?

The experiment would seem to justify abundantly another attempt at producing local emulation by comparative scores where objective ratings are possible, especially where measurement of actual result—*i.e.*, lowered sickness or death rates, as well as formal evidence of good intention such as

the adoption of model ordinances, is obtainable.* The spirit of city and state rivalry is a sound basis upon which to obtain real stimulation and leveling up to decent minima of accomplishment.

Field Demonstrations.—Another and more direct method of stimulation is that of the sample survey or demonstration carried out in a local area. A contract is usually made between the central and local health officials in an area selected for carrying on a coöperative program of thoroughgoing health administration during a stated period. The central agency normally furnishes leadership, personnel, financial aid—or all three—and the local area furnishes administrative organization and money. Care is taken to obtain accurate measurement of results of the enlarged health activity during the demonstration period, publicity is given to the actual demonstrations of reduced disease and death rates, and at the end of a reasonable length of time the central officers withdraw, leaving the local community to carry on the enlarged program. It is presumed that the object lesson of the demonstration will lead to its continuation by local effort and also, presumably by the contagion of example, will spread improvements to neighboring local units.

Rural Sanitation.—The Public Health Service has had an extensive experience with this device of stimulation in the field of general rural sanitation. The method was initiated as a result of an intensive survey of Yakima County, Washington, in 1911, carried on by the Service at the invitation of, and with the coöperation of, the state and local boards of health. The study had as its original

* The plan for comparative ratings under the new standard milk program will, in all likelihood, provide another opportunity to test the efficacy of this stimulation device. The American Public Health Association has taken preliminary steps to establish a grading system for municipal health departments. If carried through it will be the most ambitious comparative rating system in the entire field of public health.

object discovering the cause of the unusual local prevalence of typhoid fever. While the survey was in progress the federal officers persuaded the county to create the position of full-time health officer with a $5,000 salary and to increase its appropriations for health work by $6,500. The demonstrated result from the improved health organization and outside aid was a 90 per cent reduction in typhoid prevalence and lessened rates for other communicable diseases.[8]

In 1914 Congress allotted the Service a few thousand dollars for special studies of rural sanitation. A unit was organized in the Division of Scientific Research with the double purpose of discovering by field surveys the most important health needs of rural life and the most practical and economical methods of meeting them; also of making practical demonstrations in such improved methods of local rural sanitation. During the next three years, intensive surveys were carried on in fifteen counties widely separated in area, from whose officials requests for studies had been received and who in each case agreed to coöperate in the survey work. In 1917 four other counties were added. The usual program for a county survey was an intensive educational campaign regarding the essentials of farm sanitation carried on by a round of personal visits to the farm homes.[9] These visits were designed not only to gain immediate results, but also to arouse local sentiment in favor of permanent improvements and to educate the state and local health officials generally to continue such work when unaided from the outside.

By 1917 it was apparent to the Service officers in charge that the primary rural health needs were not the special promotion of any part of the usual health program, but rather the development of general facilities for health work by increased appropriations and especially by the provision of full-time, professional county health officials. Beginning with that year, therefore, the rural sanitation program be-

came one of demonstrating the value of such adequately financed and professionally led local health administration. The surveys had established their popularity so that applications from state and rural counties provided an ample field from which to select the best areas for demonstrations. Congress in this year appropriated $150,000 for the work, including for the first time the proviso that the state or local unit must in each case match the federal allotment.

Beginning in the summer of 1917 the war diverted this work for a year and a half to that of intensive demonstrations in the extra-cantonment zones around the army camps and naval stations. These zones were arbitrarily selected for such work rather than carefully chosen after local invitation and federal investigation as to the permanent value of stimulation. They differed from the regular plan also by including cities as well as essentially rural areas. The demonstration was limited, moreover, by its comparatively short duration, since the zones were abandoned by the end of 1918 except in a few cases where the program in rural localities was continued by mutual arrangement. On the other hand, unusual financial and personnel aid was given these areas by the Red Cross. And extraordinary pressure of war-time opinion leading toward local coöperation with federal officials of all kinds was a favorable factor.[10]

In 1919 Congress renewed the $150,000 appropriation made before the war; in 1920 the sum was reduced to $50,000 a year; for 1925 and 1926 it was $75,000. The rural sanitation unit, although it was considerably curtailed by this policy of general economy, has continued its demonstrations down to the present time (1927). Including the surveys initiated in 1914 the federal agency has coöperated in 112 separate projects distributed in twenty-six of the forty-eight states. In most of the cases the county is the unit selected and the demonstration plan provides for a whole-time county health officer, a whole-time sanitary in-

spector, and a whole-time health nurse.* These officials are in almost all cases appointed by the county authorities and approved by the state and federal agencies. The chief county officer is then made a field agent of the Public Health Service and the Service officers assigned to the demonstration are appointed deputy state health officers. In the majority of units the individual demonstration has been continued over a period of years.

It would be of great value if the effectiveness of these selected field demonstrations in accomplishing their object of local stimulation to better rural sanitation could be tested. But with the data available it is impossible to apply any thoroughly objective measurements. In many of the counties, where the work is still being carried on, the test of local survival after withdrawal of federal aid cannot yet be applied. If we take as a rough measure of success the general increase in the number of full-time county health officers the result is markedly favorable. A national survey in 1914 revealed that only five states made legal provision for whole-time county health officers; in these states actual provision had been made for full-time officials as follows: Oregon 1, Washington 1, Colorado 2, Florida 2, and North Carolina 11, making a total of 17 for the whole country.[11]

* In some cases units other than counties were chosen. In Virginia ten to twelve counties joined in an inter-county health organization with a Health Service officer as supervisor. Local units were organized in groups of four counties. In Georgia, beginning in 1924, a three-county project was put in operation. And in 1921 fourteen Cape Cod towns in Massachusetts pooled their health services by creating a special sanitary district with a total budget of $7,600 and with three full-time health officials. The Massachusetts legislature in 1925 adopted a law enabling Barnstable County, in which these towns are located, to establish a county health department. In January, 1927, this first county health agency in New England, under the direction of a whole-time health officer, was inaugurated. Although any town may still maintain a health board, it is expected that the county will occupy the entire field. See Lumsden, "Cooperative Rural Health Work of the Public Health Service," *P.H.R.*, Oct. 7, 1921, p. 11. For Georgia, *P.H.R.*, Oct. 17, 1924, p. 2626; *P.H.R.*, Oct. 22, 1926, p. 2411.

By 1920 the number of actual whole-time county officials had increased to 109, in 1921 to 161, in 1922 to 202, in 1923 to 230, in 1924 to 250, in 1925 to 280, and by the beginning of 1926 to 307.[12] Striking growth is noticeable in the states of Alabama, Georgia, Mississippi, North Carolina, South Carolina, Tennessee, Kentucky, Virginia, West Virginia, Louisiana, Maryland, Missouri, New Mexico, Kansas, and Ohio. In each of these states, except Ohio (where by a statute passed in 1919 all counties were created into health districts with full-time officers), the Public Health Service has carried on its county demonstrations.

On the other hand, separate forces were probably operating to cause the increase of county health organization. The International Health Board, succeeding to the hookworm survey of the Rockefeller Hookworm Commission, has during these years carried on practically as many county health demonstrations as the Public Health Service. In many cases both agencies have contributed aid to the same projects. Since the war the Red Cross, also, has been giving personnel aid to counties for the promotion of full-time public health nursing service. And in the case of North Carolina, as well as of Ohio, state leadership has probably been of primary importance in bringing about improved county service. Still it is a safe presumption to make that the Public Health Service demonstrations have been an important factor in the whole movement.

An analysis of the effectiveness of the eighteen months of coöperative work in the extra-cantonment zone cities reveals that of the fifty-two municipalities thus included there were before the war seventeen with whole-time city health officers, the others having been served by part-time or unpaid officials.[13] At the conclusion of the period thirty-nine had full-time health officials. Of the thirteen which did not expand in this way eight had populations too small to be reasonably expected to afford a whole-time officer.

Although no extensive studies have been made of the

rural units where federal stimulation has been applied, the detailed reports and comments of individual demonstrations indicate that the device does secure in an economical way a large actual return in stimulation of local activity. The plan of free federal selection or rejection of the areas to be aided makes for a more careful control over the expenditure of federal funds than is possible under automatic federal money aid to all states and localities that meet certain conditions. Under the selective system counties do not receive money where there is no likelihood of their using it as a means for the permanent expansion of local efforts after federal aid is withdrawn. A guarantee of local official interest is secured, moreover, which would not otherwise be possible.

The actual matching of federal funds indicates clearly the reality of local interest. For the fiscal years ending 1920, for instance, the actual federal allotments were $45,360, distributed among thirty-one counties in eleven states. To meet these allotments the local and state governments appropriated $175,093, while semipublic agencies, such as health associations and Red Cross Chapters, contributed $54,001. The national funds, which the law required to be matched on at least a fifty-fifty basis, were, in other words, actually met by a five-to-one ratio. In 1921 the ratio was eight to one; in 1923, nine to one; and in 1926, ten to one.[14]

Still it should not be assumed that the demonstrations result in a rapid stimulation by contagion. The sequel of a successful demonstration in one county seems to be the request from neighboring counties for similar outside aid rather than a completely autonomous expansion on their part. Rural counties all feel the need of some ladder from the outside to enable them to climb out of the depths of sanitary neglect. The federal stimulation is felt more directly by the state health authorities who are themselves often led by the demonstrations to appropriate money for financial and personnel aid to localities. By 1925 twenty states had made

a beginning in appropriations subsidizing county health departments.[15] There are no indications yet, however, that the states will completely assume the task. It may be necessary for the Service to continue applying its aid to one county after another until each area has been directly stimulated to establish an adequate health service.*

It is probable that in some states permanent outside financial aid will be necessary to maintain an adequate county organization. In some jurisdictions the rural local area may need to be larger than the county for successful development of whole-time county officials.

The Public Health Service has urged upon Congress repeatedly that its appropriation be enlarged so as to enable it within a reasonable period to extend direct aid to the 2,500 essentially rural counties in the United States. Under its existing appropriations only sixteen per cent of this population had by 1926 created whole-time organizations.[16] At just about the time the Maternity and Infancy Act was first introduced the Service and the state health officers had framed and had introduced in Congress a regular federal-aid appropriation bill for rural sanitation called the Lever Rural Health Bill.† Because of the more active popular support

* A state health executive stated the program of federal stimulation desired by the states at the Twenty-third Annual Conference of State and Territorial Health Officers in the following language: "What we actually want is enough money to start new work and carry it to the point where we can convince the county appropriating power that that work is worth the money and then let them take it over. Let the Public Health Service help us to develop new work in new territory and turn that over to the State and county and go on in that way until all of our states and counties have been organized." See *Transactions,* 1925 meeting, p. 50.

† An appropriation of one-quarter of a million dollars increasing by one-quarter million annually until the total should reach a million was to be apportioned among the states, one-half on the basis of state area, one-half on the basis of rural population. After the first year the state, county, locality, or any combination of the three was to match the federal allotment. Each state had to submit plans for rural health work to be approved by a Division of Rural Hygiene established in the Public Health Service. (See H.R. 2845, introduced May 24,

for the Children's Bureau proposal, however, this bill came to a sudden end. There seems little likelihood of its renewal in the immediate future.

Malaria Demonstrations.—After the enlargement of the Public Health Service investigative functions in 1912 a staff of malaria experts in the Division of Scientific Research began field surveys in the South with objects similar to those of the earlier rural sanitation surveys—*i.e.,* to determine the actual prevalence of malaria in typical communities and to discover by experiment the most effectual and economical methods of combating it. During early years alternative schemes of operation were tested in selected towns and rural localities representing varying conditions. Although the Congressional appropriations were made in unconditional lump sums, local financial coöperation from mills, industrial plants, or health organizations was secured in practically all instances. Care was taken to develop the demonstration value of the experiments by keeping accurate records of malaria reduction, its economic effects, and in some cases its actual profit-making value as an industrial investment in a mill village.[17]

By 1920 the Service had determined the best methods for local malaria control and proceeded, as previously in rural sanitation, upon a program of demonstration.[18] In that year it began coöperative work in eleven states. As usual, the communities were selected on the basis of the "ability and willingness of local authorities to carry out the anti-malaria work recommended." The local unit always matched or exceeded the federal money appropriation. In most cases the Service contributed merely its technique, supervision, and directing personnel. In 1923, due to the limitation of the Service appropriation and a feeling that the educational or stimulation work had been fairly adequately done, this program was terminated, or, more accu-

1919, 66th Cong. 1st Sess. Similar bills were introduced in the 63rd, 64th, and 65th Congresses.)

rately, it was diverted to rural health control where in the Southern states malaria demonstration work became a part of the more general program of demonstrations in rural sanitation carried on by the Service.[19]

Trachoma.—Trachoma has also been the subject of special coöperative activities on the part of the Public Health Service. Investigations made in the Alleghany Mountains led to the establishment in 1915 of a federal trachoma hospital maintained coöperatively with the Virginia State Board of Health.[20] Under similar arrangements temporary hospitals were established during succeeding years in Tennessee, North Dakota, Kentucky, Missouri, Minnesota, and Arkansas—places where trachoma was found to be prevalent. These hospitals were used for the "examination, diagnosis, and treatment of persons suffering from trachoma." They were also utilized as centers from which extensive field work was carried on through clinics and other means. Since trachoma responds readily to vigorous public health measures these regions, the worst infected places in the country, were practically cleared of the disease in a period of years. In Kentucky and North Dakota, moreover, after federal aid was concluded a resurvey showed that the work of eradication had been permanent.[21] The action of the federal government in stimulating an adequate attack upon this disease has been peculiarly effective and of great merit in the economy of administrative organization.

Other Examples of Stimulation.—Space does not permit the inclusion of other instances where conferences, suggestion of standards, research or field investigations have involved the Public Health Service, the food and dairy units in the Department of Agriculture, and the welfare and hygiene units in the Department of Labor in activities which, in effect, may be classified as demonstration, stimulation, and aid to the states. The programs for shellfish sanitation, interstate water supply purification, elimination of stream pollution, and the development of mortality and mor-

bidity statistics might properly be so classified. The variety and flexibility of devices used, as well as their surprising extent in the federal field, has perhaps been sufficiently indicated by the examples analyzed. There remains to be discussed the most formal and elaborate machinery of stimulation—that of federal grants-in-aid.

Federal Grants-in-Aid.—The federal grant-in-aid, since it involves the allotting of money and other aid to *all* states which comply with the minimum requirements set down in federal statutes and administrative regulations, is to be distinguished from the method of stimulating state activity by selecting particular areas for demonstration. The first use of this latter type of federal aid in the field of public health was in connection with the war-time campaign for combating venereal diseases.

The Chamberlain-Kahn Act.—In a previous chapter (Chapter VI) mention has been made of the passage of the Chamberlain-Kahn Act of July, 1918, as a part of the military organization for the attack on venereal diseases. In another place (Chapter XIII) the activities in the field of scientific research and popular health education of the two new federal agencies created under it (the Interdepartmental Social Hygiene Board and the Venereal Disease Division of the Public Health Service) have been described. It remains to consider the financial machinery of federal aid also initiated by it. Although it was the first application of general federal aid to the health function and although a considerable sum of money was appropriated, the Act of 1918 was passed with very little debate and with practically no opposition inside or outside Congress. This was due partially to the careful maturing of the draft of the bill in consultation with all of the health and social-hygiene agencies concerned with it, partially to the sympathetic and intelligent sponsorship by the committee chairmen from whom it took its title, but perhaps mainly to the fact that it contained provisions generally considered to be a legitimate part of emergency

war legislation. It was passed through Congress as an unobtrusive rider on the current Army Appropriation Bill.[22]

The federal-aid provisions of the Act were in three parts. First was the million-dollar appropriation designed to aid states and localities in the construction of detention and reformatory facilities near the military camps. Second came the appropriation of $400,000, partly for educational and partly for medical research. And third, there was the million-dollar appropriation for each of two years to be allotted to the state health agencies in aid of a venereal disease program. Each of the three appropriations was to be expended by allotments to states, localities, or institutions. The history of the reformatory-aid fund has already been given (Chapter VI). Although neither the Act nor administrative regulations required it, the grants to state and local institutions stipulated in practically all cases the matching of the federal allotments on at least a fifty-fifty basis. No grant was made until after assurance that minimum standards of efficiency in institutional care would be maintained.[23]

The money grants-in-aid for medical and educational research under the Chamberlain-Kahn Act were also made directly to individual institutions. The administration of the medical research fund has been described in the preceding chapter (Chapter XIII) as an instance of national scientific research in the field of preventive medicine. The disposition of the educational research fund, since in fact it was used mainly as aid to school hygiene education rather than to specific research projects, has been reserved for treatment here. Seven hundred thousand dollars of the $850,000 appropriated under this section of the Act down to the end of the fiscal year 1921, when Congress discontinued the grant entirely, was allotted to individual educational institutions to aid them in establishing, developing, and partially maintaining departments of hygiene. The granting and supervision of the allotments was under the direction of the Interdepartmental Board, with an ex-director of school hygiene

immediately in charge. It became in effect an agency for the stimulation of school education in hygiene and health. The grants, not necessarily made to states or localities, but often to institutions directly, did not require the local matching of the appropriation. During the three-year duration of the experiment twenty-two colleges and universities, fourteen normal schools, and four colored schools, located in twenty-nine different states, received money aid and advice from the federal Board.[24]

In the case of each institution the Board proposed or approved the organization of the assisted hygiene department, although, according to its annual reports, "The details of local adaptation remain plastic, permitting the freest exercise of local initiative, interpretation and vision. . . ." [25] The purpose of the appropriation as stated in the law was plainly to promote educational research in social hygiene. The only relation to this purpose, however, in its actual administration was the requirement that social hygiene be included as a normal part of the courses in general hygiene. The effectiveness of the grants in stimulating hygiene education apparently was considerable. To quote the Board report for 1922:

> From every one of these institutions there has come a very earnest and convincing assurance that the assistance given by the Government through its financial help, its educational program, and its advisory service has been of very great importance and of effective value.
>
> In each case it has been stated that this help enabled the institution concerned to accomplish in a short period of time an organization, an extension, and a progress that could not otherwise have occurred within a period of years. . . . They propose to continue the development of their own programs as rapidly as their resources will permit.[26]

The more typical device of federal aid contained in the Chamberlain-Kahn Act was, however, the third financial provision, which stipulated that a million dollars for each of

two years beginning July 1, 1918, should be allotted to the states for carrying on venereal disease work, and which created the Venereal Disease Division in the Public Health Service to coöperate with the states in carrying out the purposes of the Act. Allotments were to be made, not to selected states, localities, or institutions, but to all states which (after the first year) matched the federal grant and fulfilled such requirements of administration as were prescribed by the Secretary of the Treasury. The simple basis of total population was used for the proportional allotment to each of the states. Although the funds under the Act were formally allotted by the Interdepartmental Board and an accounting made to this body, the Venereal Disease Division was made the active executive agency in charge of the cooperative features of administration. For this purpose, and also in order to carry on independent investigations into the causes, treatment, and prevention of venereal diseases and their control in interstate traffic, an appropriation of $200,000 was made.

The regulations governing the allotment of funds were promulgated September 4, 1918.[27] Their requirements went further than those of any preceding case of federal aid. First of all they stipulated that the state must put into operation a set of health regulations for the control of venereal diseases as communicable diseases; this set of model regulations providing for compulsory reporting, isolation, etc., had already been drawn up early in 1918 by the three Surgeon-Generals [28] and urged upon the states. Secondly it was required that the state health authority select an official to be put in charge of venereal disease control. Not only was his appointment to be approved by the Surgeon-General of the Public Health Service, but he was also made a Service officer with a nominal federal salary of $10 a year. The state might, if it desired, pay the remainder of the salary out of the funds allotted by the federal government. Provision was made for appointing each of the then heads of state vene-

real disease control bureaus—wherever they existed—to the post of "fifty-fifty man," as it came to be called. The regulations enunciated the main items in a thoroughgoing plan of attack on venereal diseases. Although not imposing the program in detail upon each state, they included a suggested division of funds for the several parts of the program as follows: 50 per cent for clinics and other treatment, 20 per cent for educational measures, 20 per cent for repressive measures, and 10 per cent for general and miscellaneous activities. In this way emphasis was placed upon venereal disease clinics as the principal means of attack. A general reporting form and a uniform accounting system were also set down in the regulations.

There is not space here for anything but a brief description of the actual accomplishments under this system of federal aid. During its first years the Venereal Disease Division proved to be a valuable agency for advice, supervision, and leadership. The device of a "fifty-fifty" man acting as liaison officer between state and central administrative agencies appears, as in the case of county agricultural agents, to have been a distinct success. The coöperative clinics, maintained in large numbers, apparently became accepted as an essential part of any community attack upon the venereal disease problem. The educational activities set in motion were manifold. We have already described (Chapter XIII) how the experts in the Washington office adapted from available sources, or prepared anew, pamphlets, exhibits, placards, and motion pictures. National campaigns were carried on to secure the support of druggists, physicians, and other strategic groups in venereal disease treatment and suppression. Steps were taken to suppress venereal disease quackery through federal police measures. And in coöperation with the School Hygiene Division of the Bureau of Education work of a more fundamental character in social hygiene education was begun.[29] As has already been noted, the usual practice of the Division was to stimulate the general demand

for social hygiene education, then to direct the demands into the appropriate channels of state administration. A perusal of state health reports during the seven-year period beginning with 1918 indicates a remarkable growth of venereal disease work throughout the country. Although more than one cause contributed to this expansion, it is highly probable that the immediate stimulation resulting from the two-and-three-quarters million federal allotments and the vigorous leadership of the Public Health Service Venereal Disease Division were among the main incentives.

Despite the apparent success and immediate popularity of the civil venereal disease program its financial support waned with each succeeding session of Congress. The history of the appropriations is as follows:

Year	Congress'l appropr.	Actual allotment total
1918–1919	$1,000,000	$912,168
1919–1920	1,087,831	991,486
1920–1921	546,345	274,213
1921–1922	(unexpended balance)	272,132
1922–1923	225,000	209,309
1923–1924	100,000	92,842
1924–1925	25,000	25,000
1925–1926	000	000

The steady reduction of allotments to the states was accompanied by a similar gradual reduction of funds for the maintenance of the federal Division from the original $200,000 to $75,000 for the years 1925-26 and 1926-27.[30]

During the whole period practically all of the states complied with the regulations necessary to receive federal aid and worked without friction under the coöperative plan. Although the nonqualifying states changed from year to year on account of a variety of circumstances, all but two or three qualified for aid during some of the seven years. Nevada, whose allotment was the smallest in amount—$890 for the first year and only $22 for the last year—did not qualify for the first three years. Other states with small popula-

tions and consequently small allotments which failed to qualify from time to time were New Mexico 1919-20, Idaho 1920-21, Utah 1921-23, and Wyoming 1923-24. This would indicate that in order to make federal grants attractive to the smallest states a flat minimum is desirable. This has been done in the case of most of the federal aid laws. The other nonqualifying states were the large and populous commonwealths of Pennsylvania in 1918-19 and Illinois in 1923-24. Although the District of Columbia was made specifically eligible under the statute, Congress did not pass the qualifying legislation for its participation in the system until shortly after the last allotment had been made in 1925. In a number of cases the state legislatures failed to match to the full the federal appropriations, being content with a reduced allotment under the fifty-fifty arrangement. As the amounts of the federal appropriations were gradually reduced, however, the state appropriations did not so materially decrease. In 1922-23, for instance, the total federal sum available for allotment was reduced to $225,000. The state venereal disease appropriations for that year were approximately $826,000, or four times the amount of the federal grant. The next year, when the federal grant dropped to $100,000, the states appropriated $667,914, or about seven times the federal sums; and in 1924-25, when the federal aid was reduced to the ridiculous sum of $25,000, the total state appropriations remained at $681,371.84.

So it would seem that although the period after 1918 was characterized generally by an undiscriminating economy wave which especially affected the welfare functions of government (the immediate effects of which are always less measurable than in other fields), the temporary federal stimulation in this field was sufficient to place the state venereal disease administration on a stable basis, capable of standing on its own feet after federal financial aid had been withdrawn. Whether federal aid should have been terminated is very questionable; and whether the Venereal Disease

Division will continue to serve effectively as a supervising and coördinating agency without money to grant to the states it is still too early to say.* But this experience indicates that for some subjects temporary aid is sufficient to result in successful stimulation to state and local activity.

The Maternity and Infancy Act.—The second use of general federal money grants for health purposes has been in aid of state maternal and infant hygiene. Stimulation activities in this field, by popular education, conferences, and campaigns under the auspices of the Children's Bureau, have already been described. During the years when such work was being carried out the studies of the Bureau made it appear more and more clear that general ignorance and lack of facilities in rural communities were the principal causes of preventable infant mortality in the United States, and that, especially in the rural communities, the existing health agencies were failing to extend their activities to cope adequately with the problem. Accordingly, the Chief of the Bureau, in her 1917 annual report, after citing the Smith-Lever Act which among other things provides federal money aid for rural home demonstrations in agriculture and home economics, suggested that similar appropriations be made for instruction to rural mothers on matters of infant care. The recommendation in favor of this use of federal aid was renewed in 1918 and 1919.

On June 29, 1918, Miss Jeanette Rankin, the first woman member of Congress, introduced in the House a bill (65th Cong. 2 Sess., H. R. 12634) drafted largely by the Children's Bureau and carrying out the suggestion of its Chief. An identical bill (S. 4782) was presented in the Senate. The essential plan contained in these bills was copied obviously from the Smith-Lever Act with little or no critical

* The 1926 Report of the Surgeon-General (p.266) notes that some states with venereal clinics have stopped sending in reports to the Division. The Service is still alive, however, as a clearing house and continues to maintain the "fifty-fifty" men in most of the states.

examination of the probable difference between the tasks of agricultural and health education. An annual minimum appropriation to each state of $10,000 was to be made, plus a sum beginning with one million dollars the first year and increasing annually by one-fifth million until it reached two million dollars. The apportionment among the states was to be on the basis of their rural population. The allotment to each state was to be matched by it. Another condition was that each state should create a state board of maternal and infant hygiene to administer the law. This board was to be composed of the governor as chairman, and a physician representing the state board of health, a graduate nurse representing the nursing profession, and a teacher selected from the state university or state college of agriculture as the other members. The Children's Bureau was to be given charge of the allotments and of the approval of state plans for the expenditure of federal funds. The bill itself made some requirements for the receipt of federal grants, leaving others to be made by administrative regulation.

At the hearing before the House Committee on Labor, to which the bill was referred, the officers of the Children's Bureau made a convincing presentation of the need for such legislation. Their substantive arguments presented as oral testimony by eminent specialists practically without disagreement and in a series of written briefs submitted by the Bureau, were used throughout the legislative struggle in the committees and on the floor of the two chambers. They may be conveniently summarized here as follows: the high mortality rate of infants in the United States as compared with other countries and the tendency for the American rate not to decline; the actual and immediate need of more adequate instruction and more adequate facilities for care among rural mothers; the success of unified and energetic public health activity in New Zealand and other foreign countries in reducing the infant mortality rate; and finally the demonstrated effectiveness of instruction by public health nurses

and by consultation centers in certain American urban districts for reducing infant and maternal death rates.[31] Throughout the hearings there was abundant practical indorsement of this expert testimony by representatives of women's organizations and individuals personally conversant with the needs of rural mothers.

To these basic arguments was added a defense of the particular bill. Federal financial aid was upheld as a successful device for meeting the emergency need for stimulating state and local agencies to greater activity in this field. Expenditure of federal funds was justified by comparing the proposed amount with the much larger appropriations already made for animal health and agricultural education. In its early testimony the Bureau evidently relied greatly upon a successful experience in Wisconsin rural areas, with administrative organization similar to that embodied in the first Congressional proposal.

Opposition soon developed, however, to the administrative structure of the proposed law. It contained a very unwise requirement for standardized state organization involving the somewhat discredited *ad hoc* and *ex officio* principles of organization. The President of the American Public Health Association, and Dr. Rankin, the distinguished head of the North Carolina Department of Health, both voiced their objections to these requirements as contrary not only to the tendencies current in general plans for reorganization of state administration (as seen in Illinois), but as opposed also to the announced policy of centralizing all state health activities in a state health department advocated by the health associations they represented.[32]

The Children's Bureau made a rather specious defense of *ad hocism* on the ground that it provided female representation and avoided political appointments, and supported the creation of a separate board on the ground that the function was social and educational as well as a health activity. But these arguments were capably met by Drs. Josephine

Baker and Lee Frankel. The House committee adopted the views of the critics and in reporting out the bill embodied the necessary changes to carry them into practice.

Although reported favorably from the committee with these amendments, no further action was taken at this session or during the short session, December, 1918, to March, 1919. At a special session of the 66th Congress held during the fall of 1919 identical Senate and House bills (S. 3162, later S. 3529, by Senator Sheppard, and H. R. 10925, by Mr. Towner), embodying most of the revisions contained in the bill as finally enacted, were introduced. They were renewed at the regular session, December, 1919. In the revised bill the state legislatures were left the option of creating the *ex officio* and *ad hoc* board required in the original draft or of designating the central board of health as the appropriate state agency. As finally enacted the legislation requires that the regular state health agency must be designated if a child hygiene division exists therein.*

In the revised bill the Surgeon-General of the Public Health Service and the Commissioner of Education were associated with the Chief of the Children's Bureau to form a Federal Board of Maternity and Infant Hygiene with power to pass the necessary regulations and rules and to approve plans. The Children's Bureau was left in charge of the actual administration of the law. The allotment to the states was now changed so as to be made on the basis of general population rather than of rural population, although we shall see that the less populous states were in fact favored by larger relative amounts. This and successive drafts re-

* In thirty-eight of the forty-three coöperating states there is now either a child hygiene division or child welfare division in the state health department or agency. Colorado has its child welfare bureau located under the state board of education; in Iowa such a division exists in the state university board of education; in Delaware and Nebraska the child hygiene or welfare unit is in a combined department dealing with health and welfare; and in New Mexico a bureau of health and a bureau of child welfare are located in a board of public welfare.

duced the amount of the appropriation so that as finally passed it was for a five-year period only, with an annual total of a million dollars plus a $5,000 minimum to each state after the first year.

The Senate Committee on Public Health and National Quarantine held hearings on the revised bill. There now appeared an opposition consisting of the ex-anti-suffragists, drugless doctors, and other persons who might be termed the "lunatic fringe" of conservatism. They brought forth vague and tenuous charges that the bill was socialistic, that it was manufactured in Russia, that it would lead to the forced entry of homes by meddling old maids against the desires of mothers, and that it would legalize the spread of birth-control propaganda.[33] These arguments in even more vociferous and ludicrous form were urged a year later at the House hearings. It is to the credit of the committees that they did not take such opposition seriously. But an echo of it was heard in the final debates on the floor of the Senate when Senator Reed and a few others gave speeches resembling circus performances rather than serious controversy and at some points reaching levels of unfairness, ignorance, and prejudice which would be graver in contemplation if their recklessness had not been partially born of a knowledge of their ineffectiveness in changing actual results. As a consequence of this opposition the more rational opposing arguments on grounds of economy and states' rights receded into the background being urged by a few members of Congress only.

The Senate Committee reported out the bill favorably, it was debated, and in the following session of the 66th Congress (December, 1920—March, 1921) it passed the upper House without a record vote. In the House, however, although again reported out favorably from committee, it was lost in the end-of-the-session rush. Meanwhile the women's groups supporting the measure pushed their advocacy of it during the 1920 Presidential campaign. They

obtained not only a Democratic platform plank in its favor, but a commendatory statement from Mr. Harding, the successful Republican candidate for President. He included it among the recommendations of his message at the opening of the 67th Congress in the spring of 1921. The bills were renewed in the Senate and House (S. 1039 and H. R. 2366), and hearings were again held by committees in both houses.

At these hearings objection to placing the central administration of the measure in the Children's Bureau rather than in the Public Health Service was for the first time brought forward. Officials of the latter agency, supported by prominent state health and medical officers, maintained that the Public Health Service, as the regular federal health agency coöperating with the states, was better qualified for the task than the Children's Bureau. Aside from the probability that personal jealousy existed between the two bureaus, the discussions at the hearings revealed an honest conflict of policy between them.[34]

We have already seen that the Public Health Service through its experience in rural sanitation demonstrations had gradually adopted the view that the great need of local rural areas is for a well-rounded health program with professional directing personnel. They condemned the proposed law, therefore, as leading not only to a duplication of its own work at the hands of an agency without much experience in coöperating with states, but also because it would lead to the promotion of an unjustifiably one-sided rural health program. The contention of the Children's Bureau, on the other hand, was that the infant mortality situation constituted an emergency requiring special emphasis upon a maternity and infancy hygiene program. Its officials claimed that the Bureau would give such a program the emphasis it deserved, while the Public Health Service had in the past shown no primary interest in the development of such work.

This unseemly and confusing internicine warfare was brought to an end by a belated conference called by the re-

spective Cabinet chiefs, as a result of which the Children's Bureau was allowed to retain control over its legislative child. The episode revealed more than anything else the defect and confusion of a disintegrated national administration of health affairs.

The bill was reported out, passed the Senate on July 22, 1921, by a vote of 75 to 6, and the House on November 19, 1921, by a vote of 279 to 39. It was signed by the President on November 21 (42 U. S. Stat. L. 135). The Congressional opposition did not follow sectional or partisan lines. As indicated in the debates, the main basis for opposing votes was economy and the usual states' rights arguments. The real opposition, after all, was one of neglect and delay.* It had required four years—three Congresses, and five sessions—to obtain its passage. Four separate committee hearings had been held, two in each House, with all committee reports favorable. It was the usual story of delay due to comparative absence of responsible Congressional leadership for minor legislation. In its favor, however, was the persistent and intelligent pressure exercised by prominent women's organizations behind the leadership of the Children's Bureau.

The exact system of federal aid set up by the Act deserves description. To each state meeting the stipulated conditions $5,000 is granted outright, without any necessity of the state's matching this amount. Another $5,000 is granted to each state which does match it. The remainder of the annual appropriation, $710,000 (allowing for the maximum deduction of $50,000 for expenses of federal administration), is to be allotted to each state meeting the federal con-

* The Senate opposition was as follows: Harrison of Mississippi and Smith of Georgia—Southern Democrats; Thomas of Colorado, King of Utah, and Reed of Missouri—Western Democrats; Moses of New Hampshire, Brandegee of Connecticut, Warren of Wyoming, Frelinghuysen of New Jersey, and McCumber of North Dakota—conservative Republicans; and Borah of Idaho—independent Republican.

ditions and appropriating an equal amount. The basis of apportionment is that of the ratio of state population to total population.

Thus $480,000, or about 40 per cent, of the entire appropriation is distributed to the states equally regardless of differences of population. Since the states with the smallest populations are those predominantly rural, this serves as a partial retention of the original purpose of the framers of the Act to give especial aid to the rural population.[35]

In the hearings it became evident that discrepancies among the states regarding the particular need for maternity and infancy work were such that no general formula for administration would be wise. The Act itself, therefore, does not set down many of the rules and regulations which are necessary for the states to adopt in order to receive the grant. It merely stipulates, first, that "where there exists a child welfare or child hygiene division in its State agency of health, the said State agency of health shall administer the provisions of this Act through such division"; second, that a statement of expenditures and operations should be forthcoming from each coöperating state; third, that no federal funds should be expended for the purchase, repair, or maintenance of lands or buildings; and, finally, that no federal funds or state matching funds may be spent for maternity and infancy pensions or stipends. Detailed supervisory power is given to the Board by the following clause:

> Sec. 8. Any State desiring to receive the benefits of this Act shall . . . submit to the Children's Bureau detailed plans for carrying out the provisions of this Act within such State, which plans shall be subject to the approval of the Board.[36]

In order to enforce this provision the Board may withhold appropriations whenever it determines that the money is not properly expended under the Act. Appeal from such a decision, by a very wise departure from the usual practice, lies to the President rather than to Congress. The announced policy of the Board is to consider each state plan in the

general spirit of the Act. Its rules have defined "infancy" as not extending beyond the pre-school age. Consequently it has refused plans for work with school children. It has also ruled against the use of either federal or state-matching funds for subsidies to private agencies. But within these broad limitations it has approved plans of a varied nature. Among other things the following items have been allowed under appropriate circumstances:

1. General education regarding the hygiene of maternity and infancy including lectures, demonstrations, exhibits, pamphlets, booklets, circular and periodic letters to mothers, library bibliographies, promotion of group study courses, and educational films.
2. Stimulation of more prompt and complete birth registration.
3. Establishment of permanent health conferences for pre-natal, post-natal, infant, and pre-school consultations.
4. Organization of community public health nursing service and follow-up after health consultations.
5. Provision of hospital facilities for complicated cases.
6. Increase of local appropriations for infant and maternity work.
7. Improvement of medical school training in obstetrics and pediatrics especially in its preventive and public health aspects, also provision of post-graduate work for general practitioners in these specialties.
8. Securing greater coöperation between state public health officers and medical practitioners in carrying out prevention measures.
9. Development of local responsibility for the permanent administration of public health activities now not fully established.
10. Development and extension of facilities for reaching areas where no maternity and infancy work is now being done.
11. Study of midwife care. Aiding attempts to license and instruct midwives.[37]

In the light of the controversy in the hearings between the two federal health bureaus, it is interesting to note that, especially in the South, the Children's Bureau has come to place much emphasis upon the county unit for administration and upon the development of maternal and infant service as a component part of a general rural health organization. To quote from that part of the 1923 report of the Bureau

(p. 23) which deals with states having the county health unit plan:

> Maternity and infancy work has been considered as a part of the general public health program. In general, few public health programs had been sufficiently complete to include specific maternal and infant service, although such work was in some instances incidental. . . . In such places we plan to coöperate in providing for a county public health nurse.

This would indicate that neither the criticism of the Health Service nor the claim made by the Children's Bureau was entirely unfounded.

The response of the states to the coöperative financial arrangement, although not unanimous in any year, has been general. For the first fiscal year (actually a quarter-year ending June 30, 1922) forty-two states had accepted the terms of the Act—thirty-one by gubernatorial approval on account of having no legislative session during the period. During the next two years forty states accepted. And for the last two years—1925, 1926—forty-three states were in coöperation.

During the first fiscal year twenty-two of the forty-three states matched the full amount, six matched it in part, and fifteen accepted only the $5,000 unmatched grant. For 1923—the first full year—seventeen matched the full allotment, eighteen matched it in part, and only six accepted the minimum $5,000. During that year 61 per cent of the total appropriation available was actually allotted. At the end of 1924, 77 per cent was actually allotted; only two states received merely the minimum $5,000. In this year fifteen matched part of the additional money and twenty-six matched the maximum amount allowed to them. Of the fifteen which matched only part of the additional amounts, five were very close to the maximum sum and seven others matched more than one-half of the maximum allotted to them. It would appear that although the states are gradually increasing their appropriations, the federal sums are prob-

ably ample for stimulation purposes and their increase would not yield any corresponding state response—at least not under the present era of economy politics.[38]

It is difficult to analyze exactly the reasons for the non-coöperation of the states which have not yet accepted any federal money. In New York during the first year (1922) the legislature, acting upon the recommendation of Governor Nathan I. Miller (who during his term of office was one of the leading advocates of states' rights in matters of welfare legislation), and after considerable debate, rejected federal coöperation and then appropriated a larger sum than the federal allotment for an independent program of child and infant welfare. The succeeding governor (Alfred E. Smith) and legislature, however, reversed the state's position. In the State of Washington there was an almost identical story.

Aside from these episodes the principal opposition has been largely localized in New England. In Massachusetts the Attorney-General gave an opinion to the legislature to the effect that the Act was unconstitutional. As has been already noted, a case was initiated pursuant to a resolution of the legislature which was finally decided by the Supreme Court against the contention of the state. Since that time the state has not coöperated. Probably under the influence of its example all the other New England states, except New Hampshire, did not cöoperate for some time. In 1925, however, Vermont and Rhode Island voted to come under the Act, leaving Massachusetts, Connecticut and Maine out of the fold. In Maine, although the legislature passed the necessary appropriation, the governor vetoed it.[39]

Outside of New England, Louisiana failed to coöperate until 1925; Illinois and Kansas have not done so since the first year when they were included among the coöperating states. In the case of Kansas more than elsewhere all the welfare activities, including the state departments of labor, of charities, and of health, have suffered from the results

of an indiscriminate economy wave. The aloofness of Illinois, although a part of a political struggle, is probably due mainly to the opposition of the state medical association —an attitude not shared by the official medical bodies of other states.*

Such individual state non-coöperation, of course, produces no detrimental effect on its general operation in other states. It is rather an apparent act of self-abnegation on the part of citizens who in states like Massachusetts and Illinois help to pay for federal aid without receiving back through state channels any services from its administration. The net effect is at times, moreover, to stimulate activity in the non-coöperating states. This was true of New York during the first year of the Act when the state refused to receive federal aid. Appropriations in Maine, Connecticut, and Massachusetts have all increased since their legislatures have refused federal assistance. In consideration of the general economy wave it is rather notable that only California and New Jersey have decreased their previous appropriations on account of moneys received under federal aid. In both cases a comprehensive state-wide program was under way before the passage of the federal statute. In thirty-three states the result has been an actual increase of state appropriations and in six others it has remained at the previous figure.

The existence of a few non-coöperating states, provided they do not neglect the work within their areas, serves probably as a valuable illustration of the fact that the system of federal money grants does not require states to conform to the federal plan if they prefer to go their own individual ways. On the other hand, the participation of a strong, self-reliant state, which might readily maintain a financially

* A reflection of the opposition appearing at the Congressional hearings is seen in stipulations contained in the acts of acceptance in several of the states to the effect that no federal agent is to have right of entry into any home, control of any child, etc. It will be remembered that a similar clause was inserted in the federal statute.

independent administration in this field, and which would be quite ready at any time to withdraw from the coöperative scheme if the national supervision should become irksome, is one of the best safeguards against bureaucratic tendencies. The most valuable contribution such a state can make, therefore, is to accept allotments and to coöperate in all federal-aid programs as long as they do not actually interfere with divergent or contrary state programs. On the whole the plans for federal money aid for health purposes have exhibited no improper interference and have commended themselves in actual practice.

The appropriation authorized under the Maternity and Infancy Act was for a five-year period ending June 30, 1927. The Bureau strongly urged a renewal of its appropriation for a two-year period in order that the state programs might be more completely established. A bill (H. R. 7555) authorizing the extension passed the House in the first session of the 69th Congress (1926) but failed to pass the Senate. President Coolidge in his regular message at the beginning of the second session (Dec. 9, 1926) recommended its passage, adding the proviso that the appropriations for this purpose should gradually be curtailed and the states left to walk alone. After a considerable amount of opposition the two-year renewal of the appropriation passed the Senate and became law in February, 1927.[40]

Other Proposals.—Although venereal disease and maternity and infancy work have been the only instances in the health field where federal aid has actually been put into practice, it has in several other cases been suggested. In the 66th Congress Senator France introduced a bill providing for a federal department of health with large sums to be distributed to the states annually on a fifty-fifty basis.[41] In the same Congress federal aid of the usual sort was proposed for anti-narcotic regulation.[42] In February, 1920, a bill was introduced providing an allotment of ten million dollars a year and eventually one dollar per child for the

promotion of physical education in the states.[43] We have already noted that similar machinery was proposed for rural sanitation. This has been renewed from time to time.[44]

Although there has recently been a good deal of criticism against the use of the device for educational and health purposes, it is by no means assured that it is more than a passing reaction. The various devices of stimulation here described seem to have many positive merits. They should be studied as permanent elements in our national health organization.

CHAPTER XV

PUBLIC HEALTH AND THE FEDERAL PROBLEM

Our description of the federal health machinery, while it has not explored all the nooks and crannies of the national administrative structure, has enabled us to secure at this point something approaching a complete picture of the actual central health function. Although our analysis has to a considerable extent revealed a number of problems and suggested solutions which are peculiar to each of the several medical and health services, there have recurred at least three administrative problems of a more general sort: first, the question of the proper geographical organization of medical and health work; second, the task of securing the proper relations of the various agencies of national health administration to one another; and, finally, the difficulties of organizing a satisfactory personnel for all of the health and medical units. With these more general problems we shall now be concerned. And in this chapter there will be considered the first, or what may briefly be called the federal, problem.

In earlier chapters (Chapters II and III) the constitutional or legal aspects of the federal system as applied to public health have been described. Here it will suffice to summarize that analysis by saying that the original constitutional structure attempted a water-tight division of powers between the national and state governments, in which division the health function was reserved for exclusive state action. But through generous judicial interpretations of the federal commerce, taxing-appropriation, postal, and treaty powers there has been defined a considerable if some-

what irregular area of central health authority. The actual field of national action is such that only rarely in matters of public health is the question of further centralization a constitutional one to be settled by judges weighing federal police powers and the Fourteenth Amendment in the scales of precedent and logical formulæ. Rather, in most cases, the question of national power is legislative and administrative, to be determined by the political agencies with reference to expediency or policy, the principles of political science, and of public administration.

The Decentralization Movement.—Although recurring judicial opinions have kept alive a discussion among lawyers of the legal aspects of national centralization, there was in the generation or two preceding the World War general acquiescence in the wisdom, or at least in the inevitability, of the policy involved in the gradual but steady growth of federal health and other functions then taking place. States' rights as a political issue seemed a rather forlorn hope. So markedly was this true that the author of one of the few books of the period devoted to the subject of centralization, writing in 1918 from Washington and reviewing the preceding decades, could say:

> Whether we approve or not, it must be accepted as inevitable that the development of the Federal power, persistent from the very beginning of our national history, will not only continue unchecked but will more and more be made manifest. The river is sweeping onward to the sea . . . in every contest between the so-called rights of the States and the exercise of Federal power, the latter principle has prevailed.[1]

But today there is a fairly discernible political reaction against centralization. And its causes are to an extent definable. The World War, like all wars, caused a rapid, wasteful, and necessarily inefficient concentration of military and civil governmental activities. There was created a vast, amateur, makeshift bureaucracy engaged in a tremendous effort at central emergency control over millions

of citizens. Such indiscriminate concentration of authority was bound to cause an eventual protest. And in consequence the post-war period has seen an actual relinquishment of federal authority which in turn has given precedents for urging its further curtailment.

A more spectacular cause of the reaction has been the experiment of national Prohibition. Whatever else may be said of this venture, its opponents and advocates will agree that it implies an enormous concentration of regulative power, with a consequent resistance to such power by important minorities (or majorities) who urge as one alternative state autonomy.

A third probable motive force is the post-war political swing to the Right with its emphasis upon economy and *laissez faire* (more business in government and less government in business). During the so-called progressive period preceding 1917 the national government had been building up a more vigorous and effective control, especially of business and commerce, than had been the case or than would be possible at the hands of the states. To people who have been opposed to such action, states' rights have furnished an attractive method of reducing the rigor of national regulation and, since the growth of the federal income tax, of reducing the burden of taxes as well.

Finally, outside the field of government a standardization of social life more important and striking than in government has been going forward. It has called forth the protests of authors, publicists, and social analysts. To quote from one of these critics of the tendencies of the war period and after:

> All over the country the American middle class wore to an increasing extent the same clothes, consumed the same foods, giggled or wept at the same extremely moving pictures, and repeated the same phrases.[2]

The movement resulting from these various causes has not been directed especially or specifically at the federal

health activities, although some of them are frequently included as examples of unwise national concentration. The arguments of the decentralists have, rather, assumed the form and phraseology of the great historic, constitutional struggles for local self-government and consist of an enunciation of general principles or dogmas applicable to all functions.

If these dogmas should emerge from the stage of speech-making and editorializing into a successful campaign battle cry there might result, however, a wholesale redistribution of functions between the national and state governments. Applied to public health, it would displace the method of piecemeal adjustments which during the last half century has prevailed in this field. It is important, therefore, at the outset to see how applicable to the problem of the geographical distribution of public health work are the general principles or dogmas of government which are set forth in the current discussion.

General Arguments for Decentralization.—Prominent in most of the renewed states' rights literature is the word picture of a vast, distant, ubiquitous or omnivorous bureaucracy, enmeshed in red tape, producing unimaginative and deadly uniform administration which is already, or threatens soon to be, in possession of our central government. Thus Senator Borah in a recent address: "There is scarcely an activity of body or mind but is either already, or proposed to be, brought under the surveillance of the Government through some bureau."[3] More picturesquely, Representative Campbell in a House speech some time ago described the growing tentacles of the bureaucracy:

> Government agents and inspectors, exercising every variety of authority, are found on every Pullman out of and into Washington.
>
> Government reports on every subject from adenoids to rat traps fill the files of offices that cover acres of floor space in Washington. The mahogany and quarter-sawed oak office furniture al-

ready installed has cost many millions of dollars and more is being purchased.

If a yearling dies of black-leg on a farm in Kansas, the government at Washington acts on the case. If a hog dies with cholera on a hog lot in Iowa, the government at Washington takes charge. If a weevil bores through a boll of cotton on a plantation in Texas the government at Washington is stirred to action. Nothing escapes the vigilant eye of the government and its innumerable functionaries.[4]

Perhaps the most colorful picture of a centralized bureaucracy, however, is given by the then-Senator Stanley of Kentucky in an address before the New York Tammany Society.[5]

Weddings are to be supervised by a hygienic expert and marital rites determined by some eugenic fool. Babies are to be born by Federal aid and suckled under Federal supervision. You cannot milk a cow without a Federal inspector at your heels. The factory, the mill, the counting house, the office, and the home literally swarm with a horde of petty and pestiferous representatives of this paternalistic régime. . . .

In the enforcement of this insane and pernicious saturnalia of socialistic legislation the honest toilers of America are being literally devoured by a veritable army of hungry political parasites.

To these general indictments there are often added many individual examples of the stupidities of "circumlocution offices" congenitally incapable of appreciating the unique urgencies of local situations.

Against such evils of central bureaucracy are set the general need and desirability of variety in government. It is urged that a country of broad expanses and characterized by a variety of economic and social conditions and traditions demands political clothing cut to fit the social body. Decentralized governments, it is pointed out, easily and naturally express such local differences. Furthermore, decentralized control gives a favorable opportunity for political experiments carried on in small areas, later imitated, if successful,

by other areas. This point was described by ex-President, now Chief Justice, Taft:

> There is a great advantage in having different state governments trying different experiments in the enactment of laws and in governmental policies, so that a state less prone to accept novel and untried remedies may await their development by states more enterprising and more courageous.[6]

A fourth major argument for decentralized control of governmental services is that it allows greater liberty. With power in the hands of officials under immediate responsibility to local opinion there are fewer coerced minorities and more satisfied majorities than where the huge engine of a national majority may crush out homogeneous local majorities, thereby increasing dissatisfaction with government.

Again, it is pointed out that strong local government has always been the best training school for democratic citizenship. The voter feels directly, as he participates in his local government, the beneficent or evil effects of public administration; there he can see the force of his own influence upon public officials. And by comparing the promises of the candidates as they pass in procession before him with their later performances as officeholders he is gradually trained in the fundamental task of citizenship—that of separating demagogues from conscientious public servants.[7]

The arguments for dispersion of governmental power often conclude with an appeal to history, tradition, or both. They may warn against disturbing in any part the careful arrangement of powers and machinery so wisely devised by the Fathers. Or they may make a wider appeal to world history, giving in rapid review the rise, glory, and dissolution of the great Empires of the past—Persia, Greece, Rome—each with a gradual concentration of power in its glittering capital and its dissipation in the provinces leading inexorably to disintegration and decay.

Efficiency, variety, experimentation, liberty, civic training, vitality, and permanence together constitute a formid-

able defense for governmental decentralization. But compelling as they appear, marshaled into a general argument, they fail to provide in all cases a specific formula by which one can decide the practical wisdom of the distribution of work between state and national governments in such a function as public health. For the literature of political science supplies almost as convincing a list of general arguments in favor of centralization—some of them in outright contradiction to those favoring decentralization.

General Arguments for Centralization.—In some functions of government, it is maintained, uniformity and standardization are a virtue rather than a vice. Variety and eccentricity quite appropriate to the administration of art or education, are worse than useless when applied to the organization and operations of an army. In many other services distinct and important gains in economy and efficiency are directly chargeable to unity through centralization of administration.

So, also, although variety and experiment may well be promoted in some services by decentralization, in other fields a central agency may be the only effective means of creating an agency for experiment, planning, and research. Many of what are called the staff activities of administration may be performed more economically by one central office well equipped and manned by experts than by forty-eight separate agencies with much less adequate equipment and opportunity for experiment. A central Weather Bureau and Post Office have obvious advantages long since realized in practice.

Specialization and science, moreover, have in some fields dictated the use of larger units of government. When all the community hoped to provide or knew how to provide was bed and board for its poor and needy the town almshouse sufficed. But with the growth of specialized treatment for the feeble-minded, insane, tuberculous, juvenile delinquents, and cripples each group has been gathered from

the general local institution into a specialized state institution where in larger numbers than would be possible in smaller areas the best expert institutional and professional equipment can be provided.

So also, the centralization of social and economic life has made similar centralizing demands upon the agencies of governmental regulation. Thus in the field of railway and trust regulation after a protracted period in which the American states as political Davids attempted to slay economic Goliaths the scope of political regulation has gradually been enlarged to provide for a governmental unit geographically adequate for the task. It has become a truism that for effective control of industrial or social institutions "governmental power should be as broad as the problems with which it must deal." [8]

Even the appeal to the Fathers as a general defense of states' rights encounters the stubborn fact that the framing and adoption of the American national Constitution was a bold act of centralization. Furthermore, it was the genius of its early and authoritative interpreter, John Marshall, not to view the document as a finished piece of work, but to infuse into it the evolving spirit of nationalism as opposed to localism, so that his successors have been enabled to meet with little textual alteration the expanding needs of a century and a half of tremendous territorial growth and momentous social and economic change. The latter-day lay interpreters of the constitutional system in ascribing to it logical precepts of universal applicability are rationalizing their own dislikes into dogmas rather than representing the realistic and practical method and spirit of the creators in the convention of 1787, and of the early interpreters on the bench and in the Presidential chair.

The broader appeal to history may also be made on behalf of concentration of political authority. A review of the last two centuries reveals nothing so clearly as the fundamental changes in the underlying social structure brought

about by the mechanical and scientific revolutions. These changes have been steadily in the direction of centralization and standardization. Obviously the designer of "governmental cloth" must take into account the dynamic as well as the diverse aspect of the social body.

Thus the reasons for decentralization pursued along the line of general principle and broad historical analogy are matched by an equally general and imposing array of reasons for centralization. And the search for an answer to the specific question as to the proper geographical allocation of the public health function pursued along these lines ends in a stalemate or degenerates into a forensic contest in which sharp wits, the gifts of persuasion, and the effective use of emotionally weighted illustrations win the day for one side or the other. While not unknown as a method of arriving at important governmental decisions, such general debate hardly satisfies the requirements of impartial analysis.

The Futility of General Formulæ.—No more scientific is the method of recognizing that both centralization and decentralization have a rightful place in our governmental system and then seeking to assign each function of government entirely to the national or state units on the basis of a general formula. Many such formulæ have been enunciated from time to time, none perhaps more immediately convincing than that of one of the members of the Federal Convention of 1787, James Wilson:[9]

> Whatever object of government is confined in its operation and effect within the bounds of a particular state should be considered as belonging to the government of that state; whatever object of government extends in its operations or effects beyond the bounds of a particular state, should be considered as belonging to the government of the United States.*

* Walter Thompson in his excellent book on *Federal Centralization* quotes this empty formula with approval, but later belies it by propounding a more realistic set of standards for dealing with specific functions. Many latter-day decentralizers rely upon the formula in one form or another. Thus Senator Borah in an article in the *New York Times,* July 2, 1922, after admitting that "our industrial growth and

Such a formula, although adequate to dispose of a few plainly national functions such as foreign affairs and the Post Office, or such patently local activities as cemeteries, becomes of little value in face of the fact that some functions seem to be of national importance, but can most conveniently be administered locally. What is more important, if we apply rigorously the general principles we have already enunciated, whole functions, such as health or education, break themselves up into specific services or units of activity to which different principles apply and which, therefore, require different degrees of centralization.*

A logical, water-tight, and final division of functions of government into those that are inherently or properly national, state, and local is an idle academic dream far from the facts of government and of life. The sooner we dismiss it as a useful concept from our political thinking the better. To quote a distinguished health administrator who has viewed the problem from the angle both of a federal and of a state health official:

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our economic development, changes wrought in our social life, may necessarily require a redistribution of power between the State and the National Government," concluded with utter futility, "I do believe in keeping inviolable the principles of local Government for local affairs and national Government for national affairs." Ex-Governor Lowden in a speech at Niles, Ohio, Jan. 28, 1926, repeats the same catchwords in his conclusion that "the federal government should appropriate only for those interests which are purely of national concern and clearly within the purposes for which the Federal Union was established."

* At the Conference of State Governors (June 28-July 1, 1925) discussion began with several keynote addresses decrying usurpation by the national government and urging the states to reassert their rights. To these speeches there seemed general agreement. But when Gov. Ritchie applied this general dogma logically by pointing out that all federal aid laws should be abolished, defenders of specific services at the hands of national agencies arose on every hand. So much was this apparent that a trained observer concluded a report of the conference with the remark that the discussions show "most clearly that the line between the Federal and State powers is destined to remain as elusive as the line of the Equator." See Clyde A. Beals, "Governors Challenge Federal Encroachments," *Current History Magazine,* August, 1925, pp. 793-795.

Let us waste no time in a futile effort to delimit accurately the police power and authority of each of these three jurisdictions [Federal, State, and local], but let us leave such discussions to the academicians. As practical men let us disregard the theoretical boundaries of varying police jurisdictions and attack each health problem by joint concerted action according to a nation-wide program, remembering that the spread of disease recognizes no boundaries—local, State, or Federal.[10]

Discarding the comfortable methods of general formulæ and principles of universal application as solutions of the federal problem in the public health field, we must then proceed to the more difficult task of reëxamining the actual federal health and medical services with the view to applying in detail such general principles of geographical allocation of work as are found relevant.

Health and Medical Aid to Federal Wards.—The oldest type of national medical activity, and that first described in our pages, was medical aid to special groups in the population—merchant seamen, national maritime employees, men of the Army and Navy, war veterans, Indians, and inhabitants of federal territories and reservations. When we analyze the reasons for the growth of federal activity in this particular direction we find that practically none of the general arguments or formulæ seem to apply. The primary and special reason for national supervision in each case is either that these special population groups are outside the jurisdiction of state and local governments or that they stand in a peculiar relation to the national government. In practically none of them does the task of division of authority between nation and states appear in its usual form. Rather there is presented the alternative of concentration or dispersion of control such as is found in a unitary government or any large business enterprise.

In the care of the men of the merchant marine, of the maritime civil and naval services, and of the Army this question of geographical arrangement of authority seems at no time to have emerged to a position of great importance.

Under the peculiar circumstances of the sea-going and military occupations, direct and unified national administration of medical services has seemed to be inevitable and reasonably efficient as compared with any alternative local control.

In the provision of medical and hospital aid for the war veterans, on the other hand, the nature, degree, and limits of concentration of national authority, but not the question of national responsibility for the rendering of the service, have been an acute issue. The administration of veteran medical relief is an inevitable partner to the difficulties of war administration, which is, we have noted, during the progress of hostilities, almost by definition, highly centralized, bureaucratic, and extravagant. The wisdom of compulsory war insurance itself has hardly ever been questioned since its adoption. But the organization of means for its execution, with a hastily mobilized staff to be maintained in the face of the competition for good personnel of other enlarging and more attractive public services, with premiums and allotments to be paid to an artificially mobile population, and later with prompt insurance awards, efficient medical and hospital care, reëducation, and vocational placement to be provided in unpredictable amounts, is in the aggregate a task requiring an administrative genius. From our review of the experience during and shortly after the World War, it is plain that no such genius appeared. Although there were errors enough arising from bureaucracy, our analysis fails to reveal that decentralization would have been found a sure or easy remedy for this or other defects. The dispersion of the task among forty-eight states would have compounded rather than reduced the inefficiencies. After various experiments with different degrees of deconcentration, the Veterans Bureau found that neglect, red tape, and delay may arise as surely from too little as from too much centralized control.

The most disastrous defects in the provision for veteran care, as we have seen, were not too much bureaucracy, but

too much politics, the intermeddling of Congress in the plans framed by the experts, and the reckless assignment of the task of central administration at a critical stage by the Chief Executive to a political adventurer who made a disgraceful exhibition of spoils and the ethics of piracy in his control of men and money. Such political meddling and Presidential irresponsibility are in no sense more connected with national or centralized government than with state or municipal governments. It would be flying in the face of the plain facts derived from ample experience to ascribe to state legislatures or city councils more respect for the matured judgment of experts than is exercised by Congress, or to governors or mayors higher levels in appointments or surer safeguarding against partisanship, spoils, and graft than is exercised by the President or the national administrative establishment generally. On the whole the balance is unfavorable to the smaller units. A great deal of the cruel neglect and inefficiency of the Veterans' Bureau administration would have been prevented if a politically free and efficient central administration had been promptly created and given a free hand. A large part, however, would have been almost inevitable on account of the essential difficulties of administration involved. It is arguable that an immediate adoption of deconcentration would have reduced red tape and neglect; but drastic decentralization of responsibility would only have accentuated the difficulties.

Although the territories, dependencies, and Indian reservations do not have the status of states, the administrative problem of central or locally autonomous control is much the same as that between states and the national government. The special considerations which in most cases have been a primary cause for failing to make them states or parts of states, are the primitive culture and the limited experience in self-government of large groups in their population. Granting the general desirability of local health administration for purposes of adaptability, variety, and experiment,

and granting also the too frequent clumsiness of distant central control, there are only unattractive and even dangerous possibilities in allowing natives freedom to experiment with incantations and medicine men in the control and cure of communicable diseases. The world has had dreary centuries of experiment in such pre-scientific treatment of disease. Thus the advantages of intelligent paternalism would seem to be convincing. At the same time it is the part of wisdom to recognize that permanent improvement in health levels must come from an administration which moves toward the advancement of local governments in sanitary knowledge.

Our somewhat extensive review of the federal control of the territories, dependencies, and reservations indicates clearly that, except in the case of certain naval stations, the gradual withdrawal of paternalism has been the conscious policy of the federal authorities. In the instance of Cuba this program was brilliantly executed. In other territories it is well advanced. In some places the mistake seems to have been on the side of too rapid rather than too slow relinquishment of national supervision.

On the whole, then, the tasks of medical relief and health administration among the population groups subsumed under the title "federal wards" seem to belong almost inevitably to the national government. Although in their execution there is at all times the possibility of too great concentration of central direction—and in a few cases this has been revealed in practice—there are many more cases of too great autonomy. In any event the problem of geographical location of authority is a minor one and not in any sense to be solved by giving more powers to states and localities.

The Quarantine Function.—The second general type of national health function examined was that of quarantine, using the word in its broadest sense—*i.e.*, regulation of the movement of commerce in persons or things in the interest of health. Here our study has revealed the gradual but

steady growth of the powers of the central government at the expense of the states. But the concentration of work does not represent any blind tendency caused by an omnivorous central bureaucracy. Rather it is an illustration of the reasonable application to specific functions of certain of the general principles of centralization.

These principles are seen clearly in the case of maritime quarantine which has evolved from individual, local, disconnected control to a national monopoly with a distinct trend toward international administration. In this phase of health work uniformity and standardization of regulations and their enforcement are of greater value than variety and adaptation. So also a unified agency collecting current disease information and serving as a watchtower to observe the location and movements of the world's epidemics is inherently more economical and effective than forty-eight state agencies attempting the same task. Finally, our account has revealed that as commerce expanded the state governing units became too small to regulate the essentially national or international epidemic diseases.

In the light of its clear logic the centralizing movement seems to have been painfully gradual and slow. The national character of sea-borne epidemics was a fact established by experience within a dozen years after the framing of the Constitution in the very city in which it was framed. Retarded by an almost too tender solicitude for the vested interests and good will of the seaboard localities, federal quarantine authority was increased step by step, advancing through persuasion and voluntary local relinquishment rather than through the drastic or full exercise of the national constitutional powers. The complete transfer of work was not consummated until a century and a quarter after its desirability was first established.

In a sense the federal authority over the importation of epidemics may be said still to be incomplete. There is an hiatus caused by the failure of federal constitutional power

to justify direct national supervision of seaports where epidemics have made a landing. But in practice the difficulty has been largely eliminated through the voluntary abdication of leadership by the health officials of the affected localities in favor of the federal service. Although a rather insecure method of counteracting the legal division of powers in the interest of practical effectiveness, it has seemed to meet the necessities of the situation and has avoided duplication. The blurring, if not obliteration, of the legal division of power is of no consequence except to minds so debauched with logic that they are more shocked by the undermining of neat categories than by the landing and spread of plague-laden rodents made possible by legal inhibitions against immediate and drastic operations by an adequately equipped health organization.

The growth of national regulation of foods, meat and dairy products, drugs, poisons, and sera is another classic example of the accumulation of federal power at the expense of the states. Yet here, as in maritime quarantine, the change has been plainly a result of the specific applicability of certain of the general principles of centralization and of the consequent irrelevance of the arguments for decentralization. In food control as well as human quarantine uniformity of regulations is an important desideratum. Forty-eight varieties of state rules as to contents and labels of food packages do not prosper as do fifty-seven varieties of food products. Foods manufactured and distributed for a national market require that the governmental regulating area also shall be national if regulation is to be effective rather than confusing and vexatious to all concerned. When there is continuous inspection at the place of manufacture, moreover, such inspection has an inherent economy and efficiency as compared with later state or local inspection of samples of the completed product. It was inevitable, therefore, that federal control should be accepted as more satisfactory than duplicating state regulation.

From the viewpoint of functional efficiency the principal defect in the present situation is not that we have too much centralization, but rather that it is incomplete. Sometimes, as in the case of sera and viruses, federal inspection at the factory includes a practical monopoly of regulation, since the business is organized in a few large units. But in many other products the interstate trade is only a component part of the whole trade. A national monopoly of regulation which disregarded the intra-interstate line would probably be more adequate and convenient. But recognizing this as a constitutional impossibility, the federal agencies have done the next best thing by the active promotion of coöperation between state and national agencies in a uniform plan which so far as possible avoids duplication and variety of standards and rules.

The national control of leprosy again illustrates the specific application of a valid principle of centralization. Although legally the object of state supervision after entering the United States, the resident lepers are so few that the provision of expert, specialized treatment and adequate isolation in one leprosarium is more sensible than the duplication of state equipment. Thus by voluntary state action practically the whole task of leper care has been assigned to the federal health agency.

The extension of federal control over interstate water supplies exemplifies the principle of having a unit of regulation as large as the thing regulated. The water supply on trains and boats plying across state lines is necessarily as much a matter for federal concern as are the other aspects of railway and navigation control, and for the same reasons. But the history of this federal health activity reveals more strikingly the reasonable division of work between federal and state agencies on the basis of economy and convenience. After obtaining ample legal power for the exercise of direct federal supervision over interstate water supplies, and after establishing a standardized procedure, the

Public Health Service chose the method of stimulating and aiding water supply units in state health departments rather than instituting parallel inspection and certification by federal officers. Here a controlling factor was the fact that the water used in interstate commerce is a small part of that used within states from the same sources. State performance of the federal inspection and license work with the aid of federal advice and personnel was, therefore, preferred to a useless duplication of effort. Such deliberate choice of a decentralized rather than centralized method of administration by the federal authorities would seem to the theoretical advocates of states' rights to be a denial in terms. But in the whole province of national health administration the omnivorous bureaucrat seizing every opportunity to enhance his power is more of a bogey man than a reality. The flesh-and-blood officials nearly always show a careful regard for the advantages of state autonomy.

Thus the gradual but steady expansion of federal health activities through the exercise of the quarantine power over commerce is in no sense blind or irrational. In each instance special conditions or relevant general principles have made necessary the growth of federal authority. The resulting arrangement for the division of work geographically is eminently moderate, rational, and flexible. In practically no case would a careful student of the evolution of national authority wish to return to the former condition of state or local autonomy. Here national administration within at least its present limits has come to stay.

Clearing House and Stimulation Activities.—The two chapters immediately preceding have described a number of federal health services which together may be denominated the clearing house and stimulation function. This includes vital statistics, research and scientific investigation, exchange of information, popular health education, stimulation and aid by means of conferences, optional minimum standards, competitive ratings, field demonstrations in se-

lected areas, and general financial aid. These various activities are distinguished by the fact that they do not imply the replacing of, or competing with, state and local health work. Rather they depend upon the existence and coöperation of such organizations and seek to supplement, develop, assist, and coördinate their activities in important branches of sanitary administration. Having no basis in any delegated national coercive power, but only in the federal appropriation authority, their characteristic methods of administration are those of coöperative service, leadership, persuasion, stimulation, and the pressure available through financial assistance. In no case do they exercise regulative or compelling power over the states.

In the recent reaction against federal centralization the propriety of these coöperative national activities has been condemned *in toto* as helping to create a wasteful and useless bureaucracy. The system of federal financial aid, especially, has been specifically attacked by high authority as quite improper machinery in our federal system. If our method of analysis is correct, however, the proper evaluation of this group of federal activities is to be made by the examination of each of them in the light of such special conditions and general principles of decentralization and centralization as are directly and specifically applicable.

Statistics, Research, and Education.—Our description of the federal work in vital statistics indicated quite clearly the applicability of the general argument for a unified central agency to secure uniformity and standardization. Variety and originality in the collection of birth, death, and disease rates is fatal to their usefulness. Lacking means of coercion in this field, the federal health bureaus have proceeded by the milder methods of example, persuasion, optional standards, and latterly, in the case of morbidity reports, by a very modest amount of personnel and financial aid. Although the results of these methods have been appreciable, complete adequacy of national uniform vital sta-

tistics still seems a long way off. Here is a case where the most powerful device of persuasion—that of substantial federal financial aid given on condition of meeting minimum federal standards—might properly be applied. At any rate, the collection and distribution of vital statistics is a health service which demands national participation and leadership in at least their present amount.

In the work of research and scientific investigation into problems of preventable diseases and the technique of health administration, the applicability of certain of the general arguments for centralization is also clearly apparent. The principle of saving through unified equipment and of thereby gaining opportunities for greater specialization in personnel, time, and materials was clearly set forth some years ago in an address by Dr. Woodward, a distinguished municipal health officer of his day:

> Here and there a health officer snatches a few occasional moments from his well-filled day to devote them to a quest for truth. Now and then a city expends a part of its scant resources toward the same end. Here and there a state has joined in the search for light. But the solitary health officer is like a physician whose opportunity for clinical study is limited to a single patient, and the state that undertakes to segregate and appraise the factors that affect the health of its people is only a little better situated. . . . Their fields of observation and study are too small, and the continuity of effort is too uncertain, to give promise of early results.
>
> If, then, neither the isolated health officer, nor the city, nor the state, can segregate the various conditions and circumstances that tend most strongly to promote the public health, and define the principles that should underlie future sanitary effort, there is but one agency left to undertake the work, and that is the national government.[11]

Our study has revealed that in recent years the national health offices have come to assume something of the strategic position in research and scientific investigation that Dr. Woodward urged. The plain advantages of national activity in this field do not, however, suggest that sanitary research will or should be gradually absorbed as a central

function. Although a realistic examination of experience indicates that invention, experiment, and progress can and do frequently flow from highly specialized central offices, there is still some truth in the argument that autonomous units are useful as means of experiment and improvement. Invention, after all, is still largely unpredictable, depending to a large extent upon a fortuitous combination of men, materials, and opportunity. And while for some work the national agencies are likely to possess this fortuitous combination, in others it may be wiser for them to serve as agencies of encouragement and publication for the experimental work at the hands of state, local, and private agencies. Instead of piling up central equipment and research personnel, the federal services have shown an admirable tendency to utilize state and private equipment and personnel. And in future it is quite possible that where research workers already exist in fields which are in need of development the device of federal financial aid as once used by the National Board of Health and revived by the Interdepartmental Social Hygiene Board might prove of great value. Here as much as anywhere there must be an adaptation of method to the type of work to be done. The wisdom of federal leadership and activity in at least their present proportions can hardly be questioned.

The participation of the national government in the work of health education may properly be included under that of scientific investigation since the main activities of the central agencies are those of experiment and serving as a clearing house for improved materials and methods used in popular health education. Exception to this may be made in the case of certain disease or epidemic emergencies when direct national health instruction may temporarily be desirable.

Federal Aid to the States.—Vital statistics, research, and exchange of information may be considered as staff or overhead functions especially suitable for central administration.

But in the attack upon several of the preventable disease groups, normally considered to be the duty principally of the state and local sanitary authorities, the national health agencies have also participated by means of stimulation, demonstration, and aid.

The devices of conferences, optional minimum standards, and (in some cases where objective measurement is feasible) comparative ratings as applied to specific branches of state and local health work have become a regular part of federal administrative activity. Involving no considerable expense, extra personnel, or legislative authorization they have proved to be limited, but, at times, quite useful devices of coördination and stimulation whose propriety has seldom been brought into question. On this account and because of their simplicity we need not discuss them further here. Direct financial and personnel aid to the states or localities applied to a specific disease problem has, on the other hand, been openly questioned by the advocates of states' rights and is worthy of extended analysis.

The two distinguishable types of federal aid machinery—the one illustrated in our study of rural sanitation demonstrations, malaria, trachoma, morbidity statistics, water supply, and social hygiene research, the other by the Venereal Disease and Maternity and Infancy Aid Acts—can for the most part be discussed together. Both involve national money grants to states or local units accompanied by the following conditions: (1) that the states meet certain minimum standards of administration set up by the federal legislative and administrative agencies, a careful supervision of the expenditures of such funds being instituted with the penalty of withdrawal of further aid when the funds are improperly used; (2) that the states or local units appropriate amounts of money to be spent for the same general projects or purposes as are designated for the federal funds, the state appropriation usually equaling or exceeding the federal allotment. Although not absolutely necessary,

in practically all cases where aid has been put into force some national bureau, board, or office has been authorized to act as a clearing house, supervising and accounting agency for the Act, and of necessity some state agency is designated for the actual field planning and execution of the work under the federal money grant. In addition, there are often arrangements for the appointment of coöperative personnel —*i.e.,* state officials to act as federal officers within the state or *vice versa.*

In the type of machinery represented by the rural sanitation demonstrations the Congressional money grant is made in a lump sum leaving almost complete discretion to the federal administrative authorities as to the choice of local units to be aided and the amount of money and personnel aid to be apportioned to each selected unit.* In the type represented by the Maternity and Infancy Act the basis of apportionment of funds is made by Congress and each state is entitled to its share of the subsidy provided it meets and continues to satisfy the conditions accompanying it. Both types, as our study has revealed, are now essential parts of the federal stimulative activities. But by no means is their use limited to the health function. Since recent opposition has been directed at the federal aid device in general, it is

* The lump-sum method of aid is hardly distinguishable from coöperative arrangements entered into from time to time between federal and state, local or semiprivate, health agencies for the carrying on of single projects. Such projects provide for mutual contributions of money, equipment, or personnel, or all three, on a contractual basis worked out as a result of joint conference and limited to one state or to one year. This method is usually carried through without any legislative authorization, being purely an administrative arrangement falling within the general purposes of the organic acts creating the agencies involved. Although numerous and valuable, they are known only to the technical administrators themselves—the average legislator being ignorant of this as well as many other types of coöperative activity between federal and state governments. While they are especially useful in the field of public health for coöperative work in scientific investigation, their variety and number render them unsusceptible of general analysis. For that reason they are not separately discussed here.

well to see how and where else it has been applied in our federal system.

Most students indicate that the origins of federal aid are to be found in the traditional practice of our national government in giving portions of the public lands, or proceeds from their sale and the sale of their products (such as timber and minerals) to the states in which they are located, to be spent for purposes usually designated as education, roads, or other internal improvements.[12] Since these grants were until recently not accompanied by any supervision to insure their proper expenditure and almost no conditions incident to their acceptance, they might better be considered as a special financial arrangement of national and state equities in the use and disposal of the public domain.

The modern machinery of federal aid, including continuing money grants with provision for state matching of funds and federal conditions and arrangement for supervision of state expenditure, has since 1887 been applied to the following objects in addition to public health: (1) agricultural and vocational education, including the maintenance of instruction in colleges of agricultural and mechanic arts (the so-called land grant colleges which were themselves established by practically outright federal land grants to the several states), maintenance of instruction and training of teachers in these subjects in secondary schools, special training along vocational lines of adults crippled in industry, and informal extension education for adults and others engaged in agriculture; (2) agricultural research through supervised grants to experimental stations operated in connection with the land grant colleges; (3) the suppression of animal and plant diseases through a variety of minor coöperative arrangements, many of which have not required specific Congressional authorization; (4) highway construction through which by far the largest federal aid amounts are granted to the states; (5) forest conservation, by means of a lump sum appropriation granted by the Forest Service

mainly for coöperative work in forest fire protection; (6) state militia aid, carried on by the War Department, primarily as a means of producing uniformity in equipment, organization, and personnel qualifications.*

It is interesting to note that of the five purposes for which similar machinery has been used in England three—education, health, and agriculture—are the same as those to which it has been applied in the United States. The other two objects to which the English national government has applied it are police control and the care of defectives.[13]

The questions naturally arise as to why just the activities mentioned have been selected for the employment of federal aid and just what functions are especially suitable for its employment. And here we may deal with one of the major objections to its use at all, an objection based upon the conception of a complete and logical division of whole functions between the national and state government which the federal aid system is designed to circumvent and will in the end destroy. To quote from Governor Ritchie:

> From a governmental point of view, the unsoundness of the fifty-fifty system lies principally in the fact that it applies to purposes which are inherently local in their nature, and the Federal

* Minor instances of federal aid have not been included in the discussion. In the case of levee construction or flood control work on the Mississippi and Sacramento Rivers, federal aid on a fifty-fifty basis was applied, and coöperative financial support of rivers and harbors construction has at times been used. In 1879 the federal government offered to pay one-half the expenses of a five-year census to be made on federal schedules and forms, but to be undertaken by the states. Since only three states accepted, this use of the device may be said to have been a failure. Again, in the case of the Carey Act of 1895, federal grant of irrigable lands was made to the states on condition of their development of such lands by sound irrigation projects to be passed upon by federal authorities. This plan has met with only scant success and was replaced later by the Newlands Act providing direct federal promotion of irrigation projects. Federal aid has been proposed for a host of other subjects, some of the most promising being that of federal aid of state employment exchanges, for engineering research at the land grant colleges, and for tuberculosis work.

Government secures the right of supervision or control over these purely local functions by exacting it from the States as a condition to giving them some of the money which the Government taxed their people to raise, the Federal Government thus getting indirectly and by bargain a right of control over local affairs which it could not exercise directly under the Constitution. . . . Such a thing strikes at the very heart of American institutions and destroys the American theory of local self-government.[14]

But our analysis of the federal system both from the legal and administrative point of view indicates the unsoundness of this whole concept of a water-tight constitutional division of powers. Health, as a governmental function in the United States, we have shown is neither a purely state and local nor a purely national function; and it is fruitless to attempt to allocate many other functions in such a manner.[15] The federal aid system instead of applying to governmental purposes "inherently local in their nature" is a device for selecting those aspects of predominantly local functions which demand some degree of central action without disturbing the general legal allocation of powers. Just what activities are proper objects for such selection must be determined, as are other branches of federal activity, by an examination of each case to see what special administrative or political conditions exist and what general principles of centralization and decentralization apply.

For the activities we have cited where federal aid has been applied in the United States there seems to be abundant justification in relevant principles of centralization. In the instances of highway construction, the militia, and morbidity statistics the need for federal action as a means of securing uniformity and standardization is apparent. Forest conservation furnishes a good example of the administrative principle that the regulating unit should be as large as the object regulated. The great timbered areas themselves are not delimited by state boundaries and the fire protection force to be effective must be organized on a regional or interstate plan. Federal aid is enabling

the national Forest Service to obtain state coöperation in carrying on such regional plans as effective units. The attack upon trachoma and upon various plant and animal diseases through the machinery of federal aid reveals the application of another centralizing principle—*viz.*, the economies of a unified overhead. Since federal agencies are already engaged in the attack upon these diseases in interstate and foreign commerce with valuable experience and expert personnel, it would be wasteful indeed not to utilize their knowledge in the intrastate attack upon the same diseases. So is there distinct economy in federal aid to the states in the inspection and purification of interstate water supplies rather than federal duplication of state equipment and activity.

In other instances the main reason for federal assistance has been the recognition of a general interest in the development of some special or neglected phase of state health work. Here the reasons for national intervention are not so compelling nor so easy to establish as the need for uniformity or the fact of state geographical inadequacy, but they are nevertheless sound when applied to proper objects. A national outlook upon the general health problem has led in turn to the federal encouragement of rural sanitation, anti-malaria, anti-venereal disease, and maternity and infancy work by states and counties. In each case we can safely say that the neglect of these fields by the states as a whole and the importance of greater activity on their part have been pretty completely established. And in each case federal stimulation has resulted demonstrably in forward strides throughout the nation. It will readily be agreed that aid to special branches in the health or other fields should be undertaken only after there is a consensus of opinion among the most statesmanlike experts in its administration. But it will be as readily admitted that such judgments can be and have been obtained as a preliminary to national leg-

islative and administrative action more easily than in connection with forty-eight separate directive units.

A realistic examination of the uses of federal aid, therefore, leads to a conclusion quite opposite to that held by persons who, like Governor Ritchie, fear it as subversive of local self-government. It is, rather, a device designed to accommodate our federal system to occasional but insistent needs for partial centralization without disturbing in any wholesale fashion the major distribution of powers under our decentralized system. It builds upon state health and local health organizations rather than undermines them. It keeps the central staff and equipment at a minimum, leaving the main administrative operations in the hands of the states. In the field of public health, at least, it is a method for purchasing a large degree of decentralization at the expense of a little centralization carried on in an eminently mild and reasonable manner.

It is not by accident that political scientists engrossed in promoting vigorous localism have found in national conditional financial grants a system to be fostered rather than a danger to be averted. Thus Harold J. Laski, the apostle of pluralism, says of the system as applied both in Great Britain and in the United States that "it has maintained, at least in part, the virtues of a decentralized administration without suffering it to fall into the vices of negligent parochialism."[16] And Sidney Webb, the distinguished British student of local government, after his study of the grants in aid in England, concludes that they present a "remarkable combination of liberty and efficiency."[17]

A second main criticism directed against federal aid has to do with its fiscal effects. To quote from one of President Coolidge's messages:

> One insidious practice which sugar-coats the dose of Federal intrusion is the division of expense for public improvements or services between State and National Treasuries. . . . Whenever by that plan we take something from one group of States and

give it to another group there is grave danger that we do an economic injustice on one side and a political injury on the other. We impose unfairly on the strength of the strong and we encourage the weak to indulge their weakness.[18]

Following this same line of argument, Governor Ritchie, a vigorous opponent of all federal aid, has prepared a statistical analysis to prove the rather obvious fact that the states paying the highest federal internal revenue taxes (income, corporation, and miscellaneous excise taxes) to the federal government, such as New York, Pennsylvania, Illinois, Ohio, Massachusetts, and Michigan, do not receive back in total federal aid allotments sums at all proportional to their share of taxes. He points out that other states, such as Nevada, North and South Dakota, Wyoming, and Idaho, receive nearly as much or more in federal financial subsidies as the total federal internal revenue paid by them.[19]

The evident fallacy in the use of these figures is in assuming that federal taxes collected at a point within a state mean that the taxes are collected from the state as a political-economic unit. Governor Ritchie recognizes the fallacy to the extent that he leaves out entirely from his calculations the tariff, saying frankly that this part of the federal revenue cannot be allocated to the taxes. But in reality neither can the various excise taxes—the corporation tax and the personal income tax—be so allocated.

In the 1924 Treasury totals used by Ritchie, Michigan appears as the third largest state in internal revenue collections. But more than half of the total from that state is derived from the excise tax upon automobiles, collected from the manufacturer, but really paid by car purchasers throughout the country. So, North Carolina appears as fifth in the internal revenue totals, but 86 per cent of the federal collection from that commonwealth is an excise tax on tobacco, really paid by tobacco purchasers throughout the Union.[20]

An elementary knowledge of economic geography reveals

that the great corporations which, for example, contribute more than half of the internal revenue received from New York State, have their head offices in the great financial centers and their actual plant and operations in remote parts of the country or distributed throughout many states. Thus the United States Steel Corporation with 145 scattered plants, two of which are in New York State, pays its entire federal corporation tax at New York City, and the Southern Pacific and Union Pacific Railways contribute their tax at the same center, although their railway tracks are thousands of miles from New York's borders.

This is true also of the very rich men who congregate in metropolitan centers where they contribute largely to the personal income tax totals, although the sources of their income are to be found in far-away mines, fields, cotton mills, packing plants, railroads, forests, and oil wells. Thus it is quite inaccurate and superficial to assign the internal revenue collections to the states where they are collected. New York City, Philadelphia, Chicago, Boston, Baltimore, and Cleveland are financial focal points from which the federal government derives its toll upon the great industrial and commercial organizations of the nation. As the Federal Treasury itself warned the readers of its publication of income statistics:[21]

> There is no way of ascertaining from the income tax returns the amount of income earned in the respective states or the amount of tax paid on that basis.

If we look at the other side of the federal balance sheet the superficiality of the objection to the distribution of money among the states through conditional grants is again revealed. All the federal aid money is about 3 per cent of the total federal expenditures in any year, or, excluding the grants for highways, is less than one-half of 1 per cent of the total. However distributed, such sums can have no fiscal consequences as between so-called poor and rich states.

The federal appropriations for any such purpose as maternity and infancy aid can be matched by other and larger sums spent by the federal government within a single state or group of states. The usual method of federal aid allotment by population is much nearer to an approximation to tax totals collected within the various states than a large proportion of the other federal expenditures. The fiscal objections to the conditional federal grants, therefore, not only make a mountain out of a molehill, but attempt to create a mountain mirage out of an imaginary molehill.

Closely connected with the main objection to federal aid on the ground of state inequality is the contention that money contributed to states from the outside and not felt as a direct burden upon the resident taxpayers will be spent wastefully. If the federal subsidies followed the method of the unsupervised general land grants of the early period there would be sound basis for this criticism. But the present machinery is planned to eliminate any tendency to extravagance and is successful in so doing. The careful, continuous, disinterested federal inspection, supervision, and audit of all state funds matching the federal funds produce an actual economy and prudence in expenditure of the subsidy money distinctly in advance of the appropriations for other purposes spent under the regular state legislative authority.

Thus the general objections to national subsidies as a piece of federal governmental machinery, based evidently upon unreal conceptions of our constitutional and economic system, fall to the ground when submitted to careful analysis or compared with observations of its actual working. We may conclude that it is a device of distinct utility when properly applied. The organization of the federal aid machinery itself in particular instances, it is true, has not been well devised. And if it is to become a regular part of our administrative system, rules or standards for its application

should be developed. In the field of public health, at least, the following guiding factors are suggested by experience.

1. The amount of the allotments should be carefully related to the state budgets. When allotments are made on some such formal basis as population it is quite possible for populous states to be entitled to a share which, when matched in full, would greatly overemphasize the subsidized activity. But with the provision, which seems to be generally accepted, that states may receive such part of their apportioned sum as they match, the overemphasis need not exist. In the case of the venereal disease allotments, on the other hand, where the total sum allotted was small and the apportionment was made on a population basis without any flat minimum as provided in most other grants, the allotments to the least populous states were so ridiculously small as to be ineffective as federal aid at all. A flat minimum is a sound feature of the allotment system. If made by Congress the basis of apportionment should as far as possible be the result of the forecast of experts and should not be lightly altered by Congressional committees without expert opinion as to the effect of such change upon its application to individual states.

2. Having in mind the difficulties and necessary artificiality of apportionment by legislative act in the public health field which nowhere requires large federal grants, there would seem to be a distinct superiority in the lump-sum appropriation as used for rural sanitation and for forest fire protection as opposed to the apportionment on a population or other basis. Such a system eliminates the danger of too small and too large appropriations to individual states. It is especially valuable when applied to an object which is regional rather than national, as, for instance, malaria or trachoma elimination.

3. The requirement that state appropriations match the federal funds seems to be a sound one. Whether the ratio

be fifty-fifty or some other seems to be in actual practice a matter of small importance.

4. The regulations made by the federal government as a condition precedent to receiving the funds must be carefully planned. No general principles can be set down to govern such rule-making activities, except that the state representatives should be allowed to criticize and discuss them before their promulgation. Unnecessary uniformity may be imposed through such regulations. But also it is an opportunity for imposing the very desirable uniformity sought as one of the objects of the federal aid grants. The instances where the federal rules have attempted too much stereotyping of procedure seem to be rare. In most cases the federal conditions have been made by the exercise of veto on parts or all of state plans for the expenditure of the granted funds submitted by the state authorities to the federal administrative board. Such a system allows for initiative, adaptation, and flexibility from state to state within limitations of minimum efficiency.

5. The federal conditions or regulations should aim at necessary uniformity of work rather than of structure or organization within the states. State administrative organization possesses considerable variety, and just at present there are important political attempts at its improvement along more than one line. Plainly the first draft of the maternity and infancy bill erred in just this matter of attempting to require universally a type of state organization which had worked well in one state.

6. There seems to be general agreement that the national agency for the administration of each federal aid plan should be a single responsible bureau, division, or unit, while for the allotment of funds, decisions to withhold allotments, and for the enactment of regulations there should be an *ex officio* board including in its membership the administrative bureau or unit in charge. The precedent of the Maternity and Infancy Act in having appeals from decisions of the board to

the President instead of to Congress is soundly based on the greater likelihood of disinterested consideration.

7. There seem to be clear advantages in most cases in creating the so-called fifty-fifty man—*i.e.*, a state or county bureau chief appointed also as a federal field officer. Such coöperative personnel promotes effective performance of the joint program.

8. The procedures already well established for the careful audit of funds and the penalty of withholding funds until misspent moneys are replaced and plans approved are apparently necessary features for success.

9. Federal grants would seem to be suitable both for temporary aid and for continuous subsidy. When a temporary program is decided upon, however, it should be continued long enough to have a chance to be perpetuated in the states after aid is withdrawn. Sudden cutting off of funds by Congress in some cases may often, by interrupting a program of stimulation in its midst, be the worst sort of waste of funds.

10. The determination in the case of a function like public health as to what activities should be aided is a matter for careful deliberation among health experts of wide experience. Where the different phases of health work are separately organized there is likely to develop a competition for aid which may easily lead to serious confusion and waste. The development of a consistent and harmonious federal aid policy, therefore, must await the coördination or unification of the federal health agencies, the subject of the next chapters.

There are doubtless other rules for the guidance of those initiating federal aid projects. It would be well if the whole machinery of stimulation could become more consciously a set of devices understood by legislators and continuously criticized by administrators in the light of their experience.

The Ultimate Units and Centralization.—Our review of the federal division of health work reveals it to be a rather

complex pattern evolved in piecemeal fashion. Starting in a most modest way, the national health activities have had during the last half century a notable growth in three directions: the medical and health care of a large number of scattered population groups known as federal wards; the commercial regulation of imported and interstate epidemic and other dangerous diseases by means of human quarantine and supervision of agencies of transportation, foods, drugs, and water; and, finally, coördination and leadership in research, scientific investigation, vital statistics, exchange of information, and stimulation of and aid to the states in their attack upon specific diseases.

While at times competing with and tending to absorb state functions, most of this federal activity has been accompanied by a corresponding growth of state and local health work, so that general expansion rather than merely centralization is the term for accurate description of the modern American public health movement. The complementary and coöperative state-national relationships which have been worked out are for the most part admirably suited to the needs of the disease situation. The fears of the new states' rights school, so far as they are directed to the public health function, are largely irrelevant and are mainly caused by a failure to understand the social and administrative implications of what may be called coöperative federalism.

But it would be a mistake to dismiss the whole subject of the geographical division of public health work without some view of the state-local allocation of work. For it is here that the important general arguments in favor of decentralization are really applicable. Both the national and the state governments are essentially central, overhead, supervisory agencies. While in some such matters as quarantine and hospitalization they carry on direct field operations, in most cases they deal with local governmental agencies rather than directly with the individual citizen. It is the city, the village, the township, and the county which

form the ultimate public health units in direct contact with individuals and performing most of the actual field operations in disease control. Here, then, is where are to be obtained the unique advantages of local units, in training for citizenship, in maintaining liberty, variety, and experiment, and in avoiding the evils of distant bureaucracy.

If we may trust the present day prophets, the health problems of the future are increasingly to be those of personal, home, occupational, school, and neighborhood hygiene, to be met and solved by the coöperative efforts of communities rather than central engineering or regulative activities. This means that strong and popular ultimate health organizations are the essential base for the whole health pyramid.[22]

In the city there is presented no great drawback to the development of such vigorous local agencies. Recent surveys, to be sure, show plainly enough the failure of our municipalities to have accomplished this as yet. But in most urban centers there is present even today, although scattered and unorganized, enough financial strength, directive brains, trained personnel, lay leadership and understanding, and community energy to create and maintain a vigorous and efficient health service. What most of them need is coördination and unification of effort.

Outside of the cities the present situation is much less favorable. In most rural sections of the United States community life for the whole countryside centers around a large number of small villages in which the functions of local government must of necessity be carried on by amateurs and part-time workers with meager funds and support. The next larger governmental area, the county, has usually the population and financial basis sufficient to support adequate and expert local health organization. But in most places it is in no sense so close to the individual or community opinion as the village. The evident need, therefore, is the reconstruction or consolidation of rural local areas, so that the county or some similar local district may become an

ultimate unit for health and other functions comparable in efficiency and adequacy to the city, and with the popular contacts of the village. Fortunately, dynamic factors in social life such as the telephone, automobile, improved highways, and coöperative marketing are working toward such an enlargement of the natural rural neighborhood area. It is only upon vigorous, home-grown, and reasonably efficient local health units that real decentralization may be built.[23]

It would be a distinct service to the cause of local self-government if the political energy now being directed against the quite moderate and proper expansion of national health activities might be transferred to this task of building up effective local agencies which may reasonably claim the bulk of the public health work of the future. Without such reconstruction there is a very real danger that state centralization will go too far. If the only alternatives are an untrained, ignorant village health organization and an expert, vigorous state health organization, the latter will be preferred in many disease emergencies. In some places such a transfer of power is already well under way. And the only way to prevent the draining of proper local activity away from the countryside is by the creation of a financially and humanely adequate local health agency. Up to the present a large part of the initiative and energy for such vitalization has come not from below but from the national and state health agencies themselves.

Our whole study of this problem indicates that the essential task is that of charting a course midway between the extremes of ignorant and anæmic parochialism on the one hand and that diseased state of overcentralization which has been described as "apoplexy at the center and paralysis at the extremities." By and large, it would seem that the tendencies and influences now at work, if left unmolested by dogmatic and partisan influences, are likely to produce a division of activity which will be moderate and intelligent at the center and with vitality and variety at the extremities.

CHAPTER XVI

THE ATTEMPTS AT NATIONAL HEALTH REORGANIZATION

The second general administrative problem encountered in our description of the various federal medical and health units was that of their relationship to each other in the national administrative structure. In tracing the gradual development of the federal health services it has seemed evident that the particular form of their organization and their location in the administrative departments have been largely the result of chance and immediate circumstance. Since about 1905, when the number of separate federal agencies dealing with medical and health matters has considerably increased, the problem of their duplication and competition has led to periodic adjustments of a minor and piecemeal sort. But long before that time proposals had been brought forward looking to a general and all-inclusive plan for the organization of the health agencies in the central government. It is consequently an essential part of our study of federal public health administration to proceed to examine these various attempts and then to analyze the problem of organization and relationship as it exists today.

Some of the most ambitious of the proposals for a general synthesis of health agencies occurred during the period of the eighteen-seventies and culminated in a four-year experiment with the only general and inclusive national health organization that has yet been actually realized. We have already had occasion to note that this decade was an important one for public health beginnings in the United States (Chapters I and XI). Largely influenced by sanitary de-

velopments in England, Massachusetts in 1869 had created the first modern state board of health with some of the ablest medical and sanitary men of the period in its membership. Following its example and urged on also by recurrent and serious epidemics, nineteen other states organized state health agencies within the next ten years. During this period also we have noted that the larger cities such as New York and Boston organized modern health boards or departments. And mainly as an outcome of the new activities in states and cities the American Public Health Association was founded in 1872.

The Cox Proposal for a Health Bureau.—At the initial meeting of this organization in September, 1872, Dr. Christopher Cox, president of the Board of Health of Washington, D. C., presented a plan for a national bureau of health. His proposal was approved and a committee was appointed to report further upon the matter and to coöperate with the American Medical Association in urging some such plan upon Congress. Dr. Cox was instrumental in having a measure in accordance with his ideas introduced into the United States Senate in December, 1872. This bill provided for a national sanitary bureau, to be located in the Department of the Interior. In form it was modeled on the plan of the Bureau of Education and the Bureau of Agriculture which had recently been organized. The specified objects of the proposed bureau were the collection of scientific information, the centralization of vital statistics, guidance and conduct of research, and the manufacture and distribution of pure vaccine virus. The newly formed American Public Health Association, although it had formerly approved the objects of the proposed legislation, now feared that this particular bill was premature and, therefore, did not actively recommend its passage. It died in the Senate without attracting either attention or discussion.[1]

The Bowditch Report to the American Medical Association.—At about the same time the American Medical

Association began to pay more attention in its annual meetings to the problem of public health work. In 1871 a committee of that body was appointed to consider the establishment of a national health council to be auxiliary to the Medical Association and to constitute its special Section on Hygiene. This committee, in 1872, was made a special Section on State Medicine and Public Hygiene. In 1873 the Section was made regular and permanent.

In the same year Dr. Bell of New York, editor of the newly founded *Sanitarian,* introduced in the Hygiene Section a resolution favoring the establishment of a national sanitary bureau. The next year the Section passed a resolution in favor of appealing to Congress for the establishment of such an organization. In addition, a committee was appointed to report at the 1875 session a proposal for the establishment of a national department of health at Washington.

As chairman of this committee, Dr. H. I. Bowditch of Massachusetts sent out circular letters during the ensuing year to committee members in thirty-six states and territories for the purpose of getting various views on the subject. The replies were summarized in his 1875 report to the Association. From them it was evident, Dr. Bowditch said, that any "attempt to establish a National Council until there are State Boards of Health in every State, will not only be premature but positively prejudicial to the very object" they would all wish to gain.[2] "Our profession itself," he continued, "as well as the nation, must grow up to the idea."[3]

He proceeded, however, to outline a plan for a complete national health agency in anticipation of the time when the country should be ready for it. Some sort of central board for information and investigation had frequently been stated as a need in the committee replies to his questionnaire. Dr. Bowditch's plan, however, as he himself indicated, "was derived almost entirely, in its general details, from one

wrought out many years since by that deep thinker, Jeremy Bentham, of England."[4]

At the head of a proposed Cabinet department was to be a Secretary of Health. He was to have as his subordinates, or under-secretaries, the Surgeon-General of the Army, the Surgeon-General of the Navy, and the Supervising Surgeon of the Marine Hospital Service. The Secretary of Health was to be assisted by an advisory Health Council meeting for a week each year as a sort of health parliament. The Health Council was to be chosen one from each state either by the state board of health with the approval of the governor or by the American Medical Association. To these representatives were to be added four Councilors chosen from the nation at large by the American Medical Association, with a view to the representation, as nearly as possible, of the four great divisions of the country. In the Council, also, were to sit as *ex officio* members, the Health Secretary, the three Surgeon-Generals (Army, Navy, Marine Hospital Service), and the Chief Signal Officer.

The duties assigned to the department under the Secretary suggested a considerable centralization of power. It was to have control of hospitals, insane asylums, places of education, forts and camps; to have charge of the medical stores of the nation, with power to destroy useless medicines; control of reclamation of malaria districts; oversight of the nation's water supply; control of vital statistics, of the Medical Library and pathological and medical museums; and direction of national medical examinations. With such an organization Dr. Bowditch expressed the hope that the Secretary of Health might eventually foretell the coming of epidemics, as the Signal Service was already able to foretell, and thus allow provision to be made for, the weather conditions.[5]

This interesting and comprehensive report of Dr. Bowditch was very favorably received at the convention. Its principal recommendation was, however, against any im-

mediate action on the part of the Association urging the establishment of a central health department. And from this time on, through the active years of the National Board of Health, the State Medicine and Public Hygiene Section of the American Medical Association did not take a leading part. Its prominent members and officers, however, were identical with the leaders in the American Public Health Association, and during the epidemic of 1878 it sustained the attitude and program of that body rather than the divergent plans of the Marine Hospital Service.[6]

The Episode of the National Board of Health.—Quite aside from these proposals of the American Public Health Association and American Medical Association were the activities in favor of centralized quarantine eventuating in the Quarantine Act of 1878 previously described. The possibilities of using quarantine as a means of creating a general national health agency were set forth clearly by Dr. Stephen Smith, the founder and first president of the American Public Health Association, and long an active member of the New York City board of health.[7] Dr. Smith related that he urged upon Dr. Woodworth (who was taken from a position with the Chicago Board of Health to be the head of the reorganized Marine Hospital Service in 1871) the assumption of all the duties connected with—

> quarantine of the United States, growing out of the powers exercised by the Secretary of the Treasury over the customs. If he should succeed in demonstrating the value of medical authority in determining incidental health questions arising in the management of quarantines under local administration, the tendency of the Department would be to give the Marine Hospital Service jurisdiction over all similar questions. . . . Advancing along these lines, without any rival in the field, the Marine Hospital Service would naturally assume more and more the position of a central authority on all questions relating to the public health which come under the cognizance of the General Government. Thus, the Bureau might in time become, if not a Health Department, at least the permanent branch of the government service devoted to public hygiene.[8]

This advice from Dr. Smith seems to have been acted upon by Surgeon-General Woodworth. At least, through his zeal and leadership, as we have seen, he was able to influence Southern quarantine officials in the Jacksonville convention of 1878 to ignore previous proposals for a national quarantine agency composed of the three Surgeon-Generals in favor of the assignment of the task to the Marine Hospital Service. It was this convention that through its continuing committee helped frame the National Quarantine Act of 1878 which was followed closely by the disastrous yellow fever epidemic of the same year.*

Conflicting Groups.—With these two major official and unofficial interested groups in favor of an expanded federal health agency it might seem that its attainment would have been easily accomplished. But unfortunately the purposes of the groups were not identical. The Marine Hospital Service, many of the Southern port quarantine officials, and some Northern sanitarians were interested primarily in strengthening central quarantine through an expanded Marine Hospital Service. Many prominent state and local health officers, however, forming the leadership of the American Public Health Association and high in the councils of the American Medical Association had an interest in quarantine quite subordinate to their absorption in general sanitation. Some inclined to the contemporary English faith in local sanitation rather than strict quarantine as the best means of prevention against yellow fever and other epidemics. They desired a national agency principally engaged in centralization of information, prosecution of sanitary research, and collection of vital statistics. And since this attitude and interest were shared by the able group of sanitarians then in the Army Medical Department—Drs. Billings, Woodward, and others—there was a distinct tendency to favor a central organization including the Army, and to oppose the mere expansion of the Marine Hospital Serv-

* See Chapter XI.

ice.[9] What resulted in the Congressional struggles of 1879 and the years immediately thereafter was a conflict between the public health organizations themselves which at times took on the color of a sectional conflict between Southern quarantine and Northern local sanitation interests, at other times appeared as a debate between rival theories as to the causation of communicable diseases, and at still other times appeared to be a struggle for prestige and power between the two principal medical agencies of the central government.[10]

The yellow fever epidemic of 1878 gave precedence to the activities of the group interested in centralization of quarantine. Dr. Stephen Smith secured a private donation for the establishment of a semiofficial "Yellow Fever Commission" of which Surgeon-General Woodworth of the Marine Hospital Service was made the chairman and which made extensive field investigations during the autumn months of 1878. President Hayes in his annual message to Congress in December of that year urged further centralization of quarantine and suggested the Marine Hospital Service as the medium for expansion.[11]

The Lamar and Harris Bills.—Immediately there was introduced in the new session of Congress by Senator Lamar of Mississippi a bill drafted by Dr. Stephen Smith creating a national department of health. One of its bureaus was to take over the seamen's relief of the Marine Hospital Service and another to assume quarantine and sanitary work with extensive powers.[12] The department was to have as its head a director-general of health rather than a Cabinet secretary.[13] While this bill reposed in the Senate Committee, each House of Congress appointed a special committee to make an investigation and to recommend legislation on the subject. The committees formed a joint organization, took over the personnel and records of the Woodworth Yellow Fever Commission, and held hearings in Washington and in the field. Their report presented in January, 1879, included a recommendation in favor of the formation

of a chief health authority at Washington to have charge of an adequate quarantine system.[14]

Senator Harris, chairman of the special committee of the upper House, promptly drafted a bill providing for a bureau of public health with a director-general at its head to take the place of the Marine Hospital Service and its Surgeon-General. There was provided also a board of health to consist of seven members appointed by the President with the consent of the Senate, and in addition three *ex officio* members—the Surgeon-Generals of the Army and Navy and the Director-General himself as presiding officer. The board was empowered to frame and enforce quarantine regulations with the President's approval. The Secretary of the Treasury, under whose department the bureau was to be placed, was given additional quarantine authority.

This bill, replacing the Lamar bill as a subject for consideration, was taken up in the Senate on February 24th, and debated. Objections were raised from New York and New England against centralizing quarantine power and creating another national bureau. But Senator Harris defended it with arguments drawn from the experiences of the South in the yellow fever epidemic just passed, chief among which was the immediate necessity of additional safeguards against the repetition of the tragedy. The bill passed the Senate. While in the House, however, it was overtaken by the opposing plan of the other major public health group.

The American Public Health Association Plan.—At the annual meeting of the American Public Health Association held at Richmond in the fall of 1878 the principal discussions were devoted to the problem of constructing a sanitary organization adequate to meet the yellow fever menace. Although the Woodworth Yellow Fever Commission made a report it had not yet completed its investigations and was not able to present any definite conclusions of a sort to lead the Association to adopt a united program for national

quarantine and sanitary organization.[15] Unfortunately for the Marine Hospital Service, Dr. Woodworth died in March, 1879, and his successor, Dr. Hamilton, was at his inception not an active or influential member of the Association. Dr. Billings, of the Army Medical Corps, on the other hand, took an influential part in the discussions of the Richmond convention and the leading rôle in the subsequent formulation of the Association committee report.[16]

The Richmond meeting after spirited debate defeated action leading to the immediate recommendation of more vigorous national quarantine and appointed a special committee on national legislation composed of representatives of the three federal medical agencies and a member from each state board of health which together with the executive committee of the Association was authorized to consider resolutions and draw up recommendations for Congress. This committee with Dr. Cabell as chairman met early in January, 1879. Already the Lamar bill, providing for a comprehensive national quarantine and health agency, was in the Senate. That the committee held it and the subsequent Harris bills to be in violation of sound principles of sanitary science can be seen from the following quotation contained in its series of resolutions drawn up in the form of a memorandum to Congress:

> . . . in view of the great diversity of opinion among those who attempt to judge as to methods of quarantine, and especially as to the relations which should exist between national and local systems of quarantine; of the fact that we have not as yet sufficient information to enable us to formulate any system of national quarantine which might not do more harm than good; and of our belief that there is a possibility of recurrence of yellow fever in the United States during the coming summer from causes which may have survived from last summer, and which, therefore, cannot be prevented by any system of national quarantine alone; we believe that any legislation, until further investigation has been made in regard to a national quarantine, whether to provide a new law or to amend or enforce the present one, will be inexpedient and unwise. . . . We wish, however, that it shall be distinctly

understood that we are not opposed to a National quarantine system, if carefully elaborated and placed in proper connection with State and municipal sanitary organizations, but we are well satisfied that it is impossible to organize such a system at the present time. . . . In conclusion we would state that in our opinion the true interests of Public Health and Sanitary Science are in grave danger at the present time, and that it is the duty of all professional and scientific men, both as individuals and members of learned societies, to endeavor to prevent premature legislation, which is now threatened, but which we believe the great majority of our national legislators will oppose if properly informed upon the subject.[17]

In place of direct national control of quarantine the Memorandum recommended federal financial aid to state boards of health to be made on the basis of minimum conditions stipulated by the national authority.[18] And as a substitute for a national quarantine bureau or department it proposed the organization of a provisional national health commission of seven or nine members, to be designated by the National Academy of Sciences, which should "in no manner be dependent upon, or be connected with, any existing bureau or department of the Government," although it might request the detail of officers from the various Departments for assistance in its investigations.[19] The commission was not to perform administrative duties. Rather it was to investigate the causes and means of preventing yellow fever and to report to Congress at its next session a plan for a permanent national public health organization and system of quarantine.

Soon after its distribution, bills embodying the ideas of the Memorandum were introduced into the Senate and House. In the Senate the bill was referred to the special committee of which Senator Harris was chairman and was there pigeonholed—the committee reporting its chairman's own bill, which, as we have seen, passed the upper House. The House bill was discussed and amended by eliminating the essential provision for a provisional health commission

and then laid aside. In the last day or two of the session, however, a bill representing substantially the ideas of the January Memorandum was introduced anew, hurriedly rushed through the two Houses in the last hours, and became a law March 3, 1879 (20 U. S. Stat. L. 484).

The Creation of the National Board of Health.—The Act created a National Board of Health of seven members to be appointed by the President with the consent of the Senate. (Constitutional objection had been raised to designation of the personnel by the National Academy of Science as proposed in the January Memorandum.) In addition there were to be detailed as members a medical officer from the Army, one from the Navy, one from the Marine Hospital Service, and an officer from the Department of Justice. The Board was to choose its own president. No provision was made for executive officer or secretary. It was evident from its organization as well as the duties assigned to it that it was to be a temporary body created for investigation and advice rather than for administrative work.

Section 2 set forth the duties of the Board as follows:

> . . . to obtain information upon all matters affecting the public health, to advise the several Departments of the Government, the executives of the several States, and the Commissioners of the District of Columbia, on all questions submitted by them, or whenever in the opinion of the Board such advice may tend to the preservation and improvement of the public health.[20]

In Section 3 the following special task was given:

> The Board of Health, with the assistance of the Academy of Science, which is hereby requested and directed to coöperate with them for that purpose, shall report to Congress at its next session a full statement of its transactions, together with a plan for a national public health organization, which plan shall be prepared after consultation with the principal sanitary organizations and sanitarians of the several States of the United States, special attention being given to the subject of quarantine, both maritime and inland, and especially as to regulations which should be estab-

lished between State or local systems of quarantine and a national quarantine system.

As the bill passed the House it contained an appropriation of $500,000 to be used to—

> pay a certain portion of the expenses of . . . State Boards of Health or quarantine authorities at its discretion. Provided, that the amount so paid shall in no case exceed one-half the total expense for any such Board or quarantine authority. And Provided further, that such reports and information as may be required by the National Board of Health shall be furnished by the State Boards and quarantine authorities so aided.

This grant-in-aid provision, with its appropriation, was, according to Dr. Cabell, omitted by the copying clerk in the transmission of the bill from the House to the Senate. At any rate, whether by accident or design, it did not appear in the Act as it was finally passed, which carried merely an appropriation of $50,000 for salaries and expenses.[21]

The National Quarantine Act of 1879.—A temporary investigating and recommending commission for the solution of the yellow fever problem was, therefore, the only result of the activities of the session of Congress which adjourned in March, 1879. According to Dr. Stephen Smith: "When the people of the affected districts of the South learned that Congress adjourned without providing any safeguards against the return of the epidemic, the greatest indignation was manifested. In some districts, it was reported, the members of Congress were threatened with violence, if they returned without affording adequate relief to their threatened danger." [22] Fortunately, an extra session of Congress was called, and the Southern Congressmen urged the passing of a supplementary law clothing the central government with suitable quarantine powers.

A bill as first proposed at the new session granted quarantine power to the central government in practically the same terms and to the same extent as provided for in the Harris bill previously defeated. In the meantime the National

Board of Health had been appointed. It consisted mainly of the authors of the January Memorandum which had advised against the immediate assumption of national quarantine power. And to this body now, rather than to the Marine Hospital Service, the bill proposed to give the quarantine control. Having the measure referred to it, the Board was at first loath to recommend its passage. It brought forward again the alternative provision of federal financial aid to state quarantine and health authorities. But as Senator Harris, still in charge of the Senate committee on epidemic diseases, opposed this on the ground that Congress did not have the constitutional power to appropriate money for local sanitary purposes, it was abandoned.[23] So, rather than see the quarantine power go to some other national agency, the Board withdrew further objection, and the Act was passed on June 2, 1879 (21 U. S. Stat. L. 5).

By its provisions considerable quarantine authority was conferred on the newly created National Board of Health. It repealed for a period of four years the Act of April, 1878, which had conferred some quarantine power on the Marine Hospital Service. $500,000 was appropriated for the first year's expenses.[24] By a supplementary Act passed July 2, 1879, the Board was authorized to erect temporary quarantine stations along the Coast. It was also authorized to pay its secretary a stipend of $100 a month in addition to his salary as a member of the Board.

Thus, by a series of measures representing divergent purposes of different groups, there was created a Board designed at first for investigation, recommendation, and temporary existence; then to it was given for a four-year period the essentially administrative work of managing national quarantine. And the Board officials, sponsored by and representative of the American Public Health Association, with its interest in states' rights and local sanitation, were made unwilling exponents and administrators of the very nationalizing quarantine authority which they had been influential

in keeping from the Marine Hospital Service—the latter an agency with a personnel already considerably trained and eager for the task. We shall see how the Board suffered from and was finally killed by this Congressional feat of legislative hodgepodge.

Personnel of the Board.—The appointments to the Board were most reassuring to the conservative members of the American Public Health Association, who feared that premature action would result in partisan control of an essentially scientific function of government. President Hayes practically delegated the task of selection to the officers of the Association. The result was the drafting into the national service of men of the highest professional attainments and scientific skill.

Dr. James L. Cabell, President of the American Public Health Association, was chosen chairman. We have seen that as head of the special committee on legislation he had been very active in the movement leading to the creation of the Board. He was a member of the faculty of the University of Virginia. Dr. Stephen Smith, whose activity as founder and first president of the American Public Health Association and also in behalf of national health legislation has been noted, was a member. Dr. Henry I. Bowditch, first Chairman of the Massachusetts State Board of Health and prominent in urging the creation of a national health authority, was appointed to membership. The four other civilian members were well known in public health work in their respective localities and in the Association: Dr. Tullio Verdi had been president of the Washington, D. C., board of health; Dr. Bemis had been chairman of the 1878 commission to study yellow fever, was a member of the Louisiana Board of Health, an officer of the American Medical Association, and representative of the sanitarians of the South; Dr. Hosmer Johnson had been the founder of the Northwestern University Medical School; and Dr. Robert

W. Mitchell was prominent in local public health work in Tennessee.

The representative detailed from the Army, Dr. John S. Billings, maintained the same high standard of personnel so characteristic of this entire episode of the National Board. At the time of his appointment he was probably the most widely known and the ablest sanitarian who had yet appeared in the service of the federal government. His labors in connection with the creation of the Board have already been suggested; his previous and subsequent accomplishments in the field of public health were manifold. We have noted in an earlier chapter (Chapter V) that he had made reports on hygiene and hospitals in the Army and participated in field investigations which gave considerable impetus to preventive medicine in that branch of the service. His inspection and report on the Marine Hospital Service made at the invitation of the Treasury Department in 1870 we have seen (Chapter IV) did much toward giving shape and direction to its reorganization in 1871. By 1875 he had begun his affiliation with the Johns Hopkins Hospital which eventuated in his being one of the important builders of that influential institution and its medical school. To the hospital he early submitted a prophetic report on training for public health work in connection with the medical school. He was, as we have also seen, one of the principal influences in the development of vital statistics in connection with the census of 1880, and elsewhere (Chapter XIII). It was he, principally, who was responsible for the creation and development of the very complete and justly famous Surgeon-General's Library and *Medical Index*. As vice-president of the National Board he naturally became one of its most active members.[25]

From the Navy Dr. Thomas J. Turner was detailed. His ability or accessibility must have commended him to the Board, for he was chosen as its secretary and active executive officer. Dr. Bailhache, detailed from the Marine Hos-

pital Service, had not distinguished himself in sanitary work; he was probably chosen because he happened to be the only officer of high rank in the Marine Hospital Service located in its Washington office.

Activities and Termination of the Board.—The work of the National Board during its four years of active existence has been described in some detail in the accounts given in preceding chapters of the evolution of national quarantine, of scientific research (especially through the creation of the Yellow Fever Commission and financial aid to institutions and eminent scientific workers), of vital statistics under the enthusiastic leadership of Dr. Billings' committee, and, under the same leadership, the sanitary survey of localities.[26]

Despite such a solid record of constructive activity and real accomplishment, the National Board did not outlive the four-year period for which its quarantine powers had been granted in the Act of 1879. The American Public Health Association, its original sponsors, stood by it loyally and at the annual meeting in 1880 recommended its continuation without change of law or policy.[27] Senator Harris, who had originally favored the plan of expanding the Marine Hospital Service, became also one of the Board's most devoted supporters and defended it whole-heartedly within and without the Senate. In 1883 the quarantine appropriation was not renewed and quarantine authority reverted to the Marine Hospital Service under its Act of 1878. The books, records, and property, including quarantine stations, were turned over, and Dr. Billings and Dr. Turner resigned from their positions. An appropriation of $10,000 was maintained for a few years, and without power or money it continued to exist in name. Finally the law creating it was repealed by the Quarantine Act of 1893.

Causes for Its Destruction.—The general causes for Congressional opposition and the eventual destruction of the Board can perhaps best be summed up in the diagnosis made

by Dr. Billings in an address before the American Medical Association:

> . . . its creation was in one sense premature. Forced into existence in an emergency, it was only to be expected that as soon as this emergency had passed it would find itself without the support of an educated public opinion, and upon such an opinion alone, under our form of government, can such an organization securely rest. . . .[28]

A study of the debates indicates that most of the members of Congress had voted for the Board as a quarantine agency without appreciation of the necessity or value of scientific research in which its members were interested. With the passing of the yellow fever crisis the opposition to centralized quarantine began to reassert itself. It was expressed in a proviso attached to the Board's appropriation for its last year that thereafter its investigations must be limited to the diseases of cholera, yellow fever, and smallpox.[29]

A more detailed examination of the reasons for the failure of this brave experiment in national health organization was given by Dr. Cabell, in what proved to be the swan song of the Board itself, delivered at the annual meeting of the American Public Health Association in 1882. First among the four main sources of opposition he placed the State Board of Louisiana, backed by a portion of the New Orleans press, "in its repeated allegations that the National Board of Health . . . interfered with and obstructed the local authorities instead of aiding them as required by law."[30] The charges of the Louisiana Board, which appeared in several manifestos (revealing alleged private correspondence of National Board officials, through which it was sought to prove a plot to manufacture cases of yellow fever in New Orleans in order to increase the Board's power) read now in the light of the intervening years and in the light of the answers given at the time by representatives of the Board, indicate quite clearly that the state officials suffered principally from a parochial point of view and wounded official

dignity.[31] This particular grievance of Louisiana was augmented to some extent by the disappointments and jealousies caused by the money grants to localities made by the Board in carrying out quarantine functions. Dr. Bowditch described the situation in a letter to his son written in October, 1879:

> . . . I spent four days at the National Board meeting in Washington, busy in the matters of the country. The Southern and Western people would suck out of us every dollar of the five million put at our disposal by Congress. But we decided . . . that, first, we would spend as freely as possible to prevent the spread of yellow fever; but, second, we would not let every twopenny township have its quota, as it is called, of the money put into our hands. Some of these Southern men demanded that we should build them systems of sewers, etc., and because we would do no such thing, they have berated us. . . .[32]

The second source of opposition to the Board noted by Dr. Cabell was (to use his own words)—

> The powerful influence of the Treasury Department, which asserts a claim to the disbursements of all funds appropriated by Congress for the suppression of epidemics, and to the selection of its own medical officer, the chief of the Marine Hospital Service, as its agent in these operations.[33]

This opposition, while never openly proved, was charged by other members of the Board also, and on the floors of Congress. Considering the fact that the Service was never a vital part of the National Board, and had had its growth checked by the creation of the other agency, there seems little reason for questioning Dr. Cabell's statement. Underlying such opposition, however, is the fact that the board form of organization—non-political in nature—had the inherent weakness of insulation from political power. The Marine Hospital Service had the advantage of being in the care of a very important Cabinet department, and although the control of a Cabinet department may imply partisanship it also carries with it power. This same insulation from the sources of political strength characterized the analogous

General Board of Health created in Great Britain in 1848 and destroyed by inanition a few years later.[34]

The third source of opposition noted by Dr. Cabell was "the extreme jealousy of the great commercial communities in regard to all quarantine restrictions on commerce." The reason for opposition by commercial men can be seen in the duplication and delay which resulted from the retention of state quarantines despite the fact that the Board had set up an adequate quarantine system.

The fourth cause for opposition was closely connected with the second:

> As composed of medical men, selected without regard to party affiliations and wielding no political patronage, the Board finds no hearty support from politicians of either of the great parties of the country.[35]

But in addition to these specific sources of opposition, the failure of the Board to win popular and official support was due to the fact that in its creation it represented not a united program of public health advocates, but rather a miserable and clumsy compromise between competing groups. The essential things needed in the opportune years of 1878 and 1879, when public pressure upon Congress made possible a forward step in public health administration, were the following: a central body organized and equipped to carry on quarantine functions and, also, the beginnings of an agency for national public health research and centralized information which might eventually grow into a general health organization. There was at hand an organization—the Marine Hospital Service—fairly well equipped and eager to assume the quarantine task. But it was poorly provided both in personnel and leadership for investigation and research. On the other hand, there was in the Army Medical Department, by accident, a personnel excellently equipped for research and scientific investigation, with a splendidly growing medical library, with the pioneer bacteriological and histological work of Drs. Sternberg and Woodward and the

versatile leadership of Dr. Billings. Outside the national government, in the American Public Health Association and in state and local public health positions, there was a supply of excellent medical talent devoted to the cause of sanitary science and eager for its growth and expansion.

The administrative machinery actually created did not bring into coöperation or action these admirable constructive forces. Nor did the machinery that survived the wreck of the National Board conserve them. Eventually, under the Marine Hospital Service, a national quarantine system was organized which was adequate and efficient. But one cannot read the plans and accomplishments of the National Board of Health during its four years of activity in the field of research, and then scan the annual reports of the Marine Hospital Service for the next twenty years, without being convinced that it took about fifteen years for the Service to catch up with the quality of scientific leadership in statistics, research, and sanitation at the command of its predecessor.

By what agency or through what forces might we have expected the construction of administrative machinery in our national government which would have greater likelihood of success? By Congress? As we read the dreary pages which record the formulation and passage of national legislation it is evident that that body as organized and functioning then and now is less the planner of administrative devices than the register of conflicting plans, operating as a means of scrap-bag adjustment, with little coherence and often with a reckless disregard of the conditions necessary for effective administration.

By the administrative departments? Unless the matter under discussion is important enough to lead to Presidential intervention, the bureaus and departments too often represent, as in this episode, the narrow scramble for individual prestige and power. In our system of separated executive and legislature there is seldom combined in an administrative bureau directive energy and imagination with political

influence in legislative halls. The bureau chief who essays legislative direction is too often met with Congressional distrust and accusations of selfishness which insult the honorable and self-respecting and make timid the bold.

By the American Public Health Association and similar organizations? Perhaps to these powerful and comparatively disinterested bodies, in which ability and imagination are often rewarded with high office, we might look for sound administrative invention and political leadership. But in 1878 the specialized hygienist had a certain naïvéte in his appreciation of political forces and a disdain for immediate compromise, which hindered him in his hour of opportunity.

Perhaps, after all, such leadership is a matter of chance and personality. If Surgeon-General Woodworth had not worked himself to death on the Yellow Fever Commission in the winter of 1878-79! If Dr. Billings, as was at one time suggested, had been made Surgeon-General of the Marine Hospital Service in 1871, instead of Dr. Woodworth! These are if's pregnant with the possibility that the National Board of Health might have been more than an episode in our national administrative history.

Attempts to Revive the National Board.—For a decade or more after the demise of the National Board such proposals for federal health expansion as appeared took the form of reviving it or of creating an organization along similar lines. During the 'eighties (48 Cong., 1 & 2 Sess., 1883-84; 49 Cong., 1 Sess., 1885-86) Senator Harris and others presented petitions and bills to that end, but none of them advanced beyond the committee stage. When in 1895 a committee of the American Medical Association revived the matter it reported to the parent body a proposal based upon part of the early Bowditch plan for a commission representing the states. Although not indorsed by the Medical Association, it was favored by a close vote in the American Public Health Association and a bill embodying its ideas reached Congress, where it died in committee (S. 3433 and

H. R. 8280, 55 Cong., 2 Sess.).[36] A similar fate met several isolated bills presented during these two decades which proposed a federal bureau of health.*

Growth of the Marine Hospital Service.—Meanwhile the Marine Hospital Service was gradually growing into a *de facto* health bureau. Succeeding to the task of foreign quarantine in 1883, it was, as we have seen, given new powers over interstate quarantine and additional authority over maritime quarantine in 1890 and 1893, respectively. In 1890 also the medical inspection of immigrants was added to its functions. In connection with quarantine and other disease problems its staff began to carry on scientific investigations which by 1887 had expanded into the Hygienic Laboratory and in 1901 led to the organization within the Service of the Division of Scientific Research. So also the gradual growth of vital statistics and publication activities resulted in the latter year in the organization of the Division of Sanitary Reports and Statistics.

Legal authorization for these broader sanitary activities and definite recognition of the bureau as a health agency by renaming it the Public Health and Marine Hospital Service were given by Congress in an Act passed July 1, 1902 (32 U. S. Stat. L. 712). This measure also added health functions to the Service by giving it supervision of vaccines, viruses, and sera used for human communicable diseases and transported in interstate or foreign commerce. A vestigial

* For instance, H.R. 483 (1894), H.R. 36 (1895), to establish a health bureau in the Treasury Department with an advisory council of fifteen, and H.R. 7106 (1894) for a health bureau in the Interior Department with an advisory council of one from each state. So also H.R. 12 (1897), H.R. 4363, and S. 2860 (1898) for a national health department, introduced in formal response to the recommendation of the Pan American Medical Congress meeting in Mexico City in favor of the organization of such a department in each country. The list of proposals for public health bureaus and departments introduced into Congress by individuals with little group backing and given no attention outside of committees, from this period to the present, would be a long one but of practically no value in tracing the actual movement for an improved federal health organization.

remnant of the board proposals previously before Congress was contained in a section of the Act creating an Advisory Board for the Hygienic Laboratory. This Board was to include one member designated by each of the three Surgeon-Generals, one by the Chief of the Bureau of Animal Industry in the Department of Agriculture, and five citizens expert in the laboratory aspects of public health appointed by the President. A reminder of the Bowditch plan also was to be seen in the provision included in the Act for an annual conference between the state and territorial health officers and the Surgeon-General of the Public Health Service.

The 1906-12 Movement for a Health Department.—During the next decade, which was marked generally by an increased interest and expansion in governmental social welfare activities, health services developed outside the newly recognized unit in the Treasury Department. In 1906 meat inspection and food and drugs regulation under the Department of Agriculture were greatly expanded and in 1912 the Children's Bureau was established outside the Treasury Department. It is not surprising, therefore, that the movement for an enlarged and unified federal health organization was renewed.

The Committee of One Hundred.—In 1906 Professor J. P. Norton, a Yale University economist, read a paper before the Economics Section of the American Association for the Advancement of Science, stressing the economic losses from preventable illness and death and advocating the establishment of a national department of health, including in his plan an outline of bureaus and divisions for appropriate federal activity.[37] As a result of this paper a Committee of One Hundred on National Health was appointed which elected Professor Irving Fisher its president. An American Health League was started with a membership of 25,000, many of whom, such as the officers of the life insurance organizations, were other than those directly interested in medical or sanitary work.[38] The committee car-

ried on active propaganda, one of the chief vehicles being the booklet by Irving Fisher entitled *National Vitality,* which was printed in several large editions and also as a Congressional document.[39]

President Roosevelt, after appointing from the heads of federal bureaus a "Commission on the Organization of the Scientific Work of the Federal Agencies," recommended in his last message to Congress in December, 1908, the concentration of federal health activities in a bureau within one of the existing departments.[40] Indorsements were secured from the two rival candidates in the 1908 Presidential campaign and favorable planks were inserted in both party platforms. Many noted men, a majority of state governors, national societies, including the Grange and labor organizations, educational institutions, boards of health, women's clubs, and boards of trade expressed themselves favorably, and it seemed as if the country were thoroughly awakened by the Committee of One Hundred to the need of additional national legislation.[41]

In his first two messages (December, 1909 and and 1910) President Taft declared in favor of coördination through a unified health agency or bureau not necessarily connected with any department.[42] By 1910 several bills, of two main types, appeared in both houses of Congress. One type, appearing originally under the previous administration (S. 6102, S. 6101) and later sponsored by Representative Mann, provided for strengthening and adding to the functions of the Marine Hospital and Public Health Bureau in the Treasury.[43] The Committee of One Hundred decided, however, to oppose such measures as quite inadequate and adhered to Professor Norton's original proposal of a Cabinet department.[44] A bill to this end and indorsed by them was introduced in the Senate, Feb. 1, 1910, by Senator Owen (S. 6049, 61 Cong. 2 Sess). It provided for the transfer of existing health units named in the bill to a newly created department with a Cabinet secretary at its head.

Soon after its introduction he made an eloquent speech in its favor and hearings were held but he failed to obtain further action upon it during the session.[45] At the three subsequent sessions (during 1910, 1911, 1912) he renewed his bill with minor variations as to transfer of health units and other changes suggested at the hearings, but although in 1912 the bill was reported out of the committee, neither it nor the identical bills introduced in the House during the same period ever came to a vote.[46]

The Commission on Economy and Efficiency.—Meanwhile President Taft initiated action of a more comprehensive sort. Empowered by Congress (Act of June 25, 1910, 36 U. S. Stat. L. 703), he appointed a committee to investigate the business methods and administration of the national government. Finally organized as the Commission on Economy and Efficiency under Dr. Frederick A. Cleveland's chairmanship, it undertook studies of personnel, financial procedure, business practice, and departmental organization. The principal recommendation matured by it and taken up by the President was the creation of a national budget system. But it also carried on an extensive survey of departmental organization, one result of which was the publication of a complete picture of the existing national administrative establishment.[47]

Such general plans for departmental reconstruction as the commission decided upon were never published. But there did appear as a result of its studies several specific recommendations for reorganization, one of which, favoring the creation of an independent health service, was presented to the President on May 6, 1912.* The commission report set forth cogently the inefficiencies and lack of coöperation resulting from the scattering of the federal health ac-

* This report was immediately made known to leaders in Congress and was a factor in the plans for legislation even before its presentation to them by President Taft. It was not formally sent to Congress with the indorsement of the Chief Executive until January 11, 1913 (Sen. Doc. 1002, 62 Cong. 3 Sess.).

tivities, and the inability under such an arrangement either to develop a definite, common health program or to give such matters the attention that their importance deserved. The reasons cited for advocating an independent service rather than a bureau or new Cabinet department deserve quotation. The report stated that the commission had considered the question—

> whether the advantages to be derived from the correlation of these several services could not be secured by assembling them under some one of the existing executive departments. Such examination, however, has convinced the commission that this would not reach the end desired unless all the activities which are not directly related to health work be first transferred from such department. It believes that the attempt to group these several services under a department whose major interest would be in other fields would result in little, if any, improvement over existing conditions. At the same time the commission recognizes the inadvisability of adding to the number of executive departments if such action can be avoided. It is for this reason that it recommends the creation of a service which, independent of other departments, will not itself have the status of a department unless after such a service has been developed and a better basis exists for judgment it is found that an additional department is needed. It may be that by redistribution of activities the same end may be reached without increasing the number of departments.

The report specifically recommended the transfer of the following units to the new service: the Public Health and Marine Hospital Service, Food and Drugs Division, or the whole Bureau of Chemistry, in the Department of Agriculture, and the Vital Statistics Division of the Census Bureau. It proposed, in addition, the grant of discretionary power to the President to transfer "the whole or any part of any bureau, division, or other branch of the government engaged in work pertaining to the public health" except the Army and Navy Medical Departments.

Bills, one of them by Senator Owen, embodying these recommendations were promptly introduced in Congress. And thus by 1912 the committees had before them the al-

ternatives of health bureau, independent service, and Cabinet department. Some significant reorganization seemed imminent. But as early as 1910 there had appeared without much previous warning a vigorous propaganda and lobby opposed to all forms of federal health reorganization. As officially identified at the hearings these opposing groups included the National League for Medical Freedom (representing various medical cults such as the hydropaths, chiropractors, etc.), the Anti-Vivisection League, and the Christian Science Church. It was asserted also that the patent-medicine manufacturers and doctors who prescribe such remedies were influential factors in the opposition. According to a contemporary observer the opposing lobby—

> apparently with plenty of money at its command . . . put in the newspapers paid advertisements, which contained misleading statements designed to convince readers that the Owen bill proposed to establish a department of healing, that only doctors of one school of medicine would be allowed to practice, and that the "medical freedom" of those of all other schools would be restricted.[48]

From the outcome it would appear that these comparatively small but zealous groups were successful far more than their strength in the general community would warrant in modifying the proposals for the expansion and reorganization of the federal health administration. At any rate, the committees discarded the department and independent service proposals and adopted the Mann measure which shortened the name of the health agency in the Treasury Department to Public Health Service, vested slightly broader powers of scientific investigation in it, joined with it the quite separable measure for the revision of Service officers' salaries, and presented it on the floor of both houses as the best practical solution to the whole reorganization problem.[49] Although it provided for no transfer or consolidation of federal health agencies at all, it was this measure which was finally passed in August, 1912 (37 U. S. Stat. L. 309). Thus the six-year movement to unify and coördinate

the national sanitary agencies ended in complete defeat. So also with the advent of a Democratic Congress and President, the Taft program for general administrative reorganization and efficiency was laid aside and the commission itself disbanded. The only visible administrative change was the creation of the Children's Bureau and a separate Department of Labor. The energy and attention of the new party in power during the years until 1917 were devoted to enacting a comprehensive and important program of economic legislation.

Proposals for a Welfare Department and General Reorganization.—The rapid expansion of federal administrative activities and units beginning with our entrance into the World War in 1917, however, led to a renewed consideration of the problems of federal administrative organization. New bureaus, boards, councils, and committees appeared by the scores, new activities were assumed by the existing bureaus, and semipublic organizations were sanctioned by government agencies to carry on war administrative activities. In the haste of the mobilization period solutions for duplication were sought by improvised coördinating agencies and committees.

Late in 1917, however, criticisms of the organization and functioning of the war agencies led to an investigation at the hands of the Senate Committee on Military Affairs Before the Senatorial committee report could be drafted into a bill President Wilson secured the introduction of the Overman Act (40 U. S. Stat. L. 556) to meet the situation. This, as we have seen, empowered the Chief Executive "to make such redistribution of functions among executive agencies as he may deem necessary" for the war period. Although under this Act, as has been noted, an executive order was issued consolidating all civilian public health activities under the Public Health Service its entire net effect was the extinction of a subcommittee of the Council of National Defense. The only other Congressional action was a joint

resolution in March, 1917 (39 U. S. Stat. L. 1122), authorizing the Bureau of Efficiency to examine into the duplication of governmental services.*

The Welfare Department Proposal.—At the end of the war the problem appeared in renewed form because of the great increase of proposals, sponsored by important citizen groups, for new bureaus and Cabinet departments. Most of these were attempts to capitalize war expansion and war experience in the field of federal activity. In the 65th and 66th Congresses bills for an aircraft administration (non-Cabinet department), a public works department, a veterans' bureau, and a department of education, all with substantial backing, as well as less actively sponsored proposals for departments of highways, munitions, transportation, mining, conservation, and land and natural resources were introduced. Senator France, chairman at the time of the Senate Committee on Public Health and National Quarantine, submitted a bill similar to the previous Owen bills for the establishment of an executive department of health, adding an ambitious proposal for federal financial aid to general health work in the states.[50] In and out of Congress there was frequent expression of opinion that the health agencies, especially on account of the task of veteran care, needed overhauling. It became apparent that some general view of

* The Bureau of Efficiency, originally a unit working on personnel efficiency ratings under the Taft Commission on Economy and Efficiency, had been salvaged by attaching it to the Civil Service Commission. In 1915-16 it was detached from this agency and was made a separate bureau charged with the task of continuing work on efficiency ratings and also the "investigation of duplication of statistical and other work and methods of business in the various branches of the Government services." Although its head was at first appointed by the President it gradually became an agency receiving specific assignments for investigation from Congress and reporting to it. It might properly be called a legislative agency of administrative supervision. For the work of proposing reorganization of administrative services it was superseded by the Joint Committee described below, and did not make its report to Congress separately.

the post-war administrative organization and needs was necessary.

On October 23, 1919, Senator France introduced a resolution for the appointment of a committee of three from each House to investigate the public health bureaus of the government and to report the following year. This passed the Senate December 16, 1919, but in the House it was overtaken by the proposal for a joint committee similarly constituted to investigate the federal administration generally and to report two years later.[51] This joint resolution creating what was known as the Joint Committee on Reorganization was signed December 29, 1920 (41 U. S. Stat. L. 1083), after passing the House by a partisan vote with the Democrats in opposition.*

In the meantime the subject of administrative reorganization was injected into the 1920 Presidential campaign. The Republican party platform, which selected efficiency, liquidation, and economy as major issues indorsed the idea of investigation of federal organization with a view to securing "consolidation, a more businesslike distribution of functions, the elimination of duplications, delays, and overlapping of work, and the establishment of an up-to-date and efficient administrative organization." In a separate paragraph it called attention to the evils of scattering health activities and advocated their unification.

Early in his campaign Mr. Harding, the successful Republican candidate, evidently seeking a moderate method for satisfying the significant demands for education, health, and veterans' reorganization, came out in advocacy of the establishment of a new Cabinet department of public or

* Before the passage of this resolution Senator McCormick (December 7, 1920) introduced S. 4542 which embodied a plan of the National Budget Committee for general departmental reorganization and which was evidently used to some extent by Mr. Brown and the Joint Committee, as was also the plan proposed by Dr. W. F. Willoughby of the Institute for Government Research, prepared first in 1921 in multigraphed form for limited use.

social welfare. During the campaign this proposal was not described in detail, nor did Mr. Harding do more in his inaugural message than restate a general recommendation in its favor. But, as we have described elsewhere, one of his first acts as President was to detail his personal physician, Dr. Sawyer of Marion, Ohio, to investigate the existing organization in these fields and to develop concrete plans for such a department.

It was hardly to be expected that a small city physician having practically no previous contact with the national administrative structure and no theoretic training in public administration would be able to solve in a brief period this difficult puzzle of departmental organization. And it was only too evident when Dr. Sawyer appeared before the Senate Committee on Education and Labor in April, 1921, to present his plan that his ideas regarding the specific transfer of activities were vague, naïve, and altogether useless.[52] Previous to this hearing Senators Kenyon and McCormick had drafted bills for a welfare department; now the Kenyon bill was redrafted in line with the Harding-Sawyer plan to provide for four main divisions—education, health, social service, and veterans' service (S. 1607 and H. R. 5837).

Hearings again were held at which a vigorous and intelligent opposition was manifested. The proponents of educational expansion objected to placing educational work in a department where veteran relief, because of its size and political importance, would overshadow all other functions, and reasserted the need for a separate Cabinet department of education. So also representatives of the American Federation of Labor and other friends of the Labor Department insisted that the Childrens' Bureau and other bureaus whose transfer was proposed should be properly allocated in the Department of Labor. The Surgeon-General of the Public Health Service pointed out that the suggested arrangement would result in the reduction of the salary of the head of health activities. Dr. Willoughby of the Institute of Gov-

ernment Research made the point that the creation of this department involved many questions of general administrative reorganization and should not be settled without a comprehensive reorganization program.[53]

The Joint Committee on Reorganization.—In effect the committee followed this last suggestion by voting to lay the proposal on the table to await the report of the Joint Congressional Committee on Reorganization. President Harding had taken a hand in the work of the latter agency by requesting early in 1921 that he be allowed to appoint an executive representative to sit with the Joint Committee. Congress by resolution (42 U. S. Stat. L. 3) gave its authorization and the President assigned to this important post another purely personal representative—Mr. Walter Brown of Toledo, Ohio, a coal dealer, and former state Republican committee chairman. The enlarged committee elected the executive appointee chairman and for the next year or two delegated to him the actual investigation and preparation of a scheme for reorganization. The result of his work was presented to the President in the form of a tentative plan in January, 1922. There ensued a year's delay during which the President and his Cabinet attempted, as the President stated, to reconcile the views of those "charged with the administration of the different departments." On February 13, 1923, the so-called executive plan was presented to Congress and referred to the Joint Committee.[54] This was near to the close of the mid-term short session and too late for serious committee action. At the next regular session the Joint Committee considered it at length and during January, 1924, held extensive hearings on the proposals now drafted in the form of a bill.

Numerous changes were made in the executive plan, but none affected the proposals which appeared in all of the various drafts for the establishment of a department of public welfare in which education, health, and veteran relief would be included.[55] As revised, the bill (S. 3445 and H.

R. 9629) was introduced in both Houses in the concluding days of the session (June 3, 1924), just before Congress adjourned for the Presidential nominating conventions. No action was taken upon it. The Republican platform of 1924 contained specific approval of the proposals. And President Coolidge, in his inaugural address and message to the short session of Congress in December, 1924, declared earnestly for the plan as a feature of Republican policy. The bill was reintroduced (S. 3445 and H. R. 9629) and an attempt was made by the party leaders to have it given favorable consideration. But the Senate rejected a motion to give it a preferred position on the calendar and it did not reach the floor for debate in either House. Behind the difficulty of finding time for such a measure at a short session was the strong opposition to it by groups opposed to the welfare department, which was acknowledged by the leaders in charge to have rendered its eventual passage quite unlikely.[56]

With the termination of the 68th Congress (March, 1925) the Joint Committee expired. At the next regular session of Congress, in December, 1925, the ex-chairmen of the Joint Committee, Senator Smoot and Representative Mapes, introduced a proposal different in content from the bill of the previous session. This bill (H. R. 4770 and S. 1334) provided for the establishment of a joint commission of two members each from the Senate and House with a fifth member appointed by the President. This last member was to receive a salary of ten thousand dollars a year. To the commission was to be given the task of recommending to the President transfers of bureaus or other units from one department or independent establishment to another, and consolidations of independent establishment with a department. No power was given to recommend the abolition or creation of an executive department. The President in his message at the opening of the session renewed his previous general recommendation in favor of administrative reorganization. Hearings were held on the new bill before a com-

mittee of the House, but there was no further action.[57] Thus the matter stands.

A Consolidated Health Bureau Again Proposed.—With the apparent collapse of the general plan for federal administrative reorganization the leaders in public health work bestirred themselves. Neither the American Medical Association nor the American Public Health Association—nor the National Health Council of voluntary health organizations—had been actively consulted in President Harding's attempt to create a new health organization with the aid of his personal physician, state party associate, and Congressmen. On the contrary, in the one meeting of health experts held by General Sawyer to consider the department of public welfare plan he assembled a group which both by omission and inclusion was ridiculously unrepresentative of the prominent leaders of the public health movement of the nation.[58] When the joint committee bill was finally formulated a committee of the National Health Council pronounced against it and the journals of both the American Medical Association and American Public Health Association condemned it editorially as unsound, unscientific, and defective.[59]

With the general reorganization bill out of the way, the annual meetings of the American Medical Association and the annual conference of state and provincial health authorities in 1925 listened to papers on the correlation of federal health activities and committees were appointed to secure such changes as they had recommended. Under the authorization of an informal committee of public health leaders Mr. James A. Tobey, then of the Institute of Government Research, undertook another survey of the federal health activities. With a matured plan a delegation of leaders from the various health agencies called upon President Coolidge January 14, 1926.[60] Although he did not pledge his support, he suggested that a bill for the purpose be introduced in Congress. This was done (H. R. 10125). The proposed measure provides merely for the executive transfer

of public health activities to the Public Health Service in the Treasury Department. No specific transfers are provided for in its text, the Chief Executive being given full discretion in the matter, except for the positive prohibition against transfer of the Army, Navy, and Veterans' Bureau medical units. A valuable provision for coördination is made in a paragraph empowering the Surgeon-General to detail Service personnel to other departments, units, and educational or scientific institutions, also to receive detail from such institutions to the Hygienic Laboratory. Provision is made for enlarging the Hygienic Laboratory advisory council and reconstituting it as a general health council with advisory functions.[61]

Unfortunately for its immediate success, the proposed measure includes also a provision for giving commissioned status to sanitary engineers and other scientific personnel, which in the form of a separate bill had been in Congress for several years. Since this provision involved an increase of expenditure, it had to be referred to the Budget Bureau and was there negatived as being opposed to the Presidential policy of economy. As its sponsors propose to renew it at succeeding sessions of Congress, this rather mild form of consolidation may be said to be at present before Congress and the country.

CHAPTER XVII

PUBLIC HEALTH AND NATIONAL ADMINISTRATIVE REORGANIZATION

After fifty years of effort the reorganization of the national medical and sanitary services is still unattained. Executive commissions, Presidents in their messages, Congressional committees and joint commissions, parties in their platforms, medical and health associations in their conventions, political scientists in independent studies, have repeatedly pointed out that the present scattered location of federal health units is an evil and that consolidation or correlation would avoid wasteful duplication and make possible a more comprehensive and unified national public health program. At least eleven separate plans have been before Congress and three major movements evoking, as we have seen, rather widespread interest have occasioned confident but vain hopes that the problem would receive a satisfactory solution.*

* The following list of proposals, while not exhaustive, includes such as have any separate significance:

1. The Cox plan of 1872 for a bureau of health in the Interior Department. Other isolated bills since that time have made substantially the same proposal—most recently the plan submitted by Secretary Work in 1924 to the Joint Committee on Administrative Reorganization for the internal reorganization of his department through establishing three main divisions: health, education, and public works and domain.

2. The Bowditch plan of 1875 for a Cabinet department of health, with a commission representing each state, holding annual deliberative sessions.

3. The National Board of Health, 1879-1883.

4. The Committee of One Hundred plan for a Cabinet department, 1906-12, introduced at successive sessions by Senator Owen and Senator France.

Although the various proposals and the groups advocating them have been in agreement as to the general desirability of some kind of health reorganization there is seen, upon examination, to be considerable divergence between them as to the type of central agency which they wish to set up and the specific units which they would transfer to it. Such differences have been at least partial causes for the failure of any plan to receive the support of Congress. It is desirable, therefore, to see if from the vantage point of a half century of experience it is possible to find a large enough area of agreement upon principles and details so that there can be organized a concentrated rather than diffused and confused effort at attaining the common object of more effective federal health organization.

Principles of Consolidation.—If we may posit the need in any reorganization for some physical unification of the

5. Transfer to, and organization of, a health bureau in the then Department of Commerce and Labor, presented in 1910 by Representative Mann.

6. The Taft Commission on Economy and Efficiency proposal for an independent health service, 1910-12.

7. The Smoot bills for a consolidated health unit under an assistant secretary in the Treasury Department, 1912-15.

8. The Harding-Sawyer-Kenyon proposal of a health unit as one of the four main divisions in a newly established department of public welfare, 1919-21. Substantially the same proposal was made by Mr. John Pratt of the National Budget Committee, 1920-21, and presented to Congress by Senator McCormick, first as a separate measure and a year later as part of a statute providing for general administrative reorganization.

9. The plan of the Joint Committee on Reorganization for public health as one of the *three* main divisions in a Cabinet department of public welfare, included in its scheme for general administrative reorganization, 1923-25.

10. The W. F. Willoughby plan for a department of public health as an essential element in a proposal for general administrative reorganization, 1921-23.

11. The Tobey proposal for an enlarged health bureau or unit in the Treasury Department with provision for executive transfer of health agencies thereto and correlation of all health activities, 1926. This proposal, known as the Parker bill, may be said to be before Congress at the present time.

various health agencies the question arises as to what principle will serve as a basis for selecting the specific units to be consolidated. Turning to the actual structure of the national administration or that of other branches of government, we find not one but several principles under which related activities can be grouped.

Purpose or Public Service.—Most evident is the category of fundamental purpose or "the particular service" rendered "to the community as a whole." [1] Thus we have the Department of War for carrying on activities related to land defense, the Bureau of Immigration to regulate the entrance of aliens, and the Department of State to conduct foreign relations. Of such a type also would be a department of education or health. The reasons underlying this basis for classification are apparent. By its adoption close working relations between persons dealing with similar problems are established with a consequent fruitful exchange of expert information and the construction of a rounded and consistent general program. Moreover, such organization frequently reduces duplication of activity otherwise likely to develop with two separated agencies expanding into the same field from different directions, as, for instance, when the Bureau of Education and Children's Bureau approach the field of school health instruction. It is likely also that institutional or office facilities, such as statistical machines and libraries, can be used more economically if the various services in any special field of activity are under the same roof. Finally, the major division of governmental activities according to purpose, or kind of function, makes easier the organization of a budget which will show most plainly the comparative costs of each of the great services of government.[2]

Special Population Group.—A second method of classification is that of uniting all activities dealing with a certain special group in the population. Examples of this are the Children's Bureau, the Women's Bureau, the Veterans' Bu-

reau, and the Indian Bureau. The justification for such a category is also apparent. Where, as in the case of the reservation Indians, several separate services—*i.e.*, health, education, agricultural training, and supervision of property—are provided, their close integration is necessary to prevent a multiplicity of approaches and confusion of counsel to the individual Indian. Here, it is conceived, the expert technique needed is that of facility and understanding in dealing with a special type of person rather than specialized knowledge of the services rendered.

It should be noted that in more than one case these two general principles of allocation tend to coincide. In the Department of Agriculture, for instance, the union of the specialized techniques of agricultural aid tend to become also a union of all services dealing with the farming group in the population. But quite as often general purpose and special population group represent conflicting choices, as was illustrated in our account of the alternatives presented in organizing the services to the World War veterans.[3]

Professional Personnel.—Closely connected with the first basis of classification, yet theoretically separable, is allocation of activities according to the technically trained and professional personnel engaged in them. Thus the veterinarians now employed in the Army to care for the health of cavalry mounts and in the Department of Agriculture in the interest of both animal husbandry and the public health might be united in a veterinary bureau. So also there might be created a bureau of statistics consolidating the trained statisticians now operating in various departments. The present consolidation of attorneys in the federal Department of Justice comes nearest to being a classification upon this basis.

Correlation of Federal and State Units.—A final basis for allocation, seldom stressed, but of importance where cooperative relations are maintained between national and state agencies, is that of arranging federal units so as to

coincide as far as possible with the prevailing state organization of corresponding activities. Such coördination of structure would not only result in greater simplicity and consistency in federal-state coöperative work, but would also help to avoid duplication of programs and individual approaches.*

The Need for Coördination and a Coördinating Agency.—Most students of reorganization have assigned preëminence to the first basis of classification—that of primary purpose or service.† It may readily be accepted here as generally the most useful category for the allocation of units. But it is important to recognize that any reorganization program which seeks to avoid duplication and confusion of plans, and attempts to gain the advantages of specialized knowledge, must accept the validity of each of the four principles of classification and essay the complex task of

* Still another principle of classification calls for the separate organization of any service carrying on what may be called business undertakings where an independent budget should be maintained. Thus the Post Office has from the first been maintained in strict separation from other federal activities. This principle is not stressed in our study because such corporate activities do not appear in the public health field. For an analysis of such organization in our national government see Harold VanDorn, *Government Owned Corporations*, New York, 1926.

† Note the conclusions of the *Machinery of Government Committee* of the British Ministry of Reconstruction: "There appear to be only two alternatives, which may be briefly described as distribution according to the persons or classes to be dealt with, and distribution according to the services to be performed. . . ." The method "which we recommend for adoption is that of defining the field of activity . . . according to the particular service which it renders to the community as a whole" (p. 8 of the Committee report). Dr. Willoughby in his *Reorganization of the Administrative Branch of the National Government* (p. 10) adopts what he calls the "unifunctional" principle, which amounts to the same thing. His general analysis was accepted almost *verbatim* by the Joint Committee on Administrative Reorganization in its report (pp. 9, 10). Mr. Pratt of the National Budget Committee prefers the same guiding principle, using the term "analogous functions or having analogous objects" (*Academy of Pol. Science, Proceedings*, July, 1921, p. 21). Secretary Herbert Hoover adopted a similar basis, using the term "single purpose" (*Ibid.*, p. 450, and in various other addresses).

devising administrative machinery which will take all of them into account.

In most of the programs we have reviewed, the task of reorganization has been looked upon as a single act of consolidating separated units. Their authors have seemed to regard bureaus and divisions as so many posts placed by statute in certain positions, to be pulled up and reset to satisfy a particular logic. In fact, they are much more like trees whose interlaced roots lie deep in the soil, whose transplanting is difficult if not disastrous, and whose growth is such that they need constant rather than intermittent attention. The rationale of the existing location of most services is found in day-to-day administrative operations and is usually hidden to paper reorganizers until their formulations meet the criticisms of the administrative agents affected.*

The first step in reorganization must, of course, be that of deciding which of the various relationships in the case of each particular unit is most vital and fundamental and upon this basis to determine its physical allocation to a particular department or bureau. But the consolidations thus arrived at are the beginning, not the end, of thoroughgoing administrative reorganization. It is quite as essential to trace relationships of the unit in question based upon the alternative principles of classification and to erect administrative devices to express them. For such purposes the machinery of coördination rather than consolidation must be employed. The completed pattern will be made up of the warp of con-

* How many armchair critics, for instance, have pointed with easy scorn to the "absurdity" of giving to the Federal Bureau of Education the task of supervising the reindeer industry in Alaska! But faced with the outdoor task of furnishing governmental aid to the ice-bound, isolated, and poverty-stricken native villages there appears much merit and economy in giving to the teacher and his wife, as they set out on their winter mission, all the available science and equipment—agricultural, medical, and educational—which the government at Washington has to bestow upon its wards.

solidation and the woof of coördination by means of which coöperation between units performing similar functions, serving the same groups in the population, employing the same professional personnel, and engaged in active relations with the same state administrative units will be worked out.[4] There already exist in the federal administrative structure many devices for coördination, brought into being by informal arrangements among the interested agencies. But the most effective arrangements cannot be secured by trusting to such efforts. There is needed both for the working out of coördinating machinery and for the continuous study of the problems of consolidation, some agency in constant touch with the detailed operation of the administrative machine and with the opportunity of viewing it as a whole.

In theory Congress through organic and appropriation acts might serve as such a supervisory agency. But not only is Congress itself divided into two duplicating parts for purposes of legislative planning, but also within each House such activity is separated by the committee system into thirty or more parts. The only coöperation that exists in this disintegrated organization is that of a steering committee seeking to accomplish political rather than administrative unity in the legislative program.

The President through his power of appointment, of removal, and general executive authority might with more reason be expected to act in the capacity of general administrative supervisor. But occupied as he is as party head and active participant in the lawmaking process as well as the dignitary chief of state, he has not, through his regular offices, been able hitherto to assume the tasks of administrative supervision in anything like the necessary detail or continuity.

According to traditional conceptions it is the special province of the Cabinet to serve as coördinator between the executive departments. Although it is difficult to discover just what the Cabinet actually does at its meetings, enough

information has been gleaned to indicate that it serves primarily as an organ of political consultation for the President and very little as a mechanism of overhead administrative control.* With the considerable number of boards, commissions, and single-headed units now existing outside of the ten executive departments the Cabinet is, moreover, organically incapable of serving effectively in the latter capacity.

In 1921 the executive structure of the national government was augmented by the creation of the Bureau of the Budget, legally in the Treasury Department, but in practice serving as an administrative arm of the Chief Executive and exercising his authority. In his first report to the President the Budget Director, General Charles G. Dawes, set forth in an able manner a broad conception of the Budget Bureau as an agency for general administrative supervision as well as for the preparation of the annual fiscal program.[5] He recognized clearly that consolidation of bureaus was not the only and perhaps not the most important task in securing proper administrative organization. Limiting himself to the more purely business activities of the government, he proposed, and under executive order created, *ex officio* boards or committees for the coördination of such matters as purchases, printing, liquidation of supplies, real estate, traffic, contracts and adjustments, and hospitalization. This was later followed by the organization of regional co-

* Correspondence with Chief Executives and ex-Cabinet members in the possession of the author, but which he is not at liberty to publish, indicates clearly that the Cabinet activities may be defined as above. For confirmation of this view see the occasional descriptions which have appeared in print, such as the article by Hilary Herbert in the *Century Magazine,* Vol. 85 (March, 1913), pp. 740-744. See also Joseph P. Tumulty, *Woodrow Wilson as I Know Him,* New York, 1921, 553 pp.; Chas. Seymour, ed., *The Intimate Papers of Colonel House,* 2 vols., Boston, 1926; A. W. Lane and L. H. Hall, eds., *The Letters of Franklin K. Lane,* Boston, 1922, 473 pp.; David F. Houston, *Eight Years with Wilson's Cabinet,* 2 vols., New York, 1926.

ördinating committees and of associations or committees of federal administrators located in particular cities.

These committees should be carefully distinguished from such agencies as the Federal Board for Vocational Education, Federal Power Commission, and Interdepartmental Social Hygiene Board, which are made up of a directing board of *ex officio* members—frequently Cabinet officers—with an appointed executive secretary who in practice becomes the chief of a separate operating unit. The usual result of creating such *ex officio* boards is that, although they are partially designed to eliminate duplication, they actually create a new bureau to be correlated. The Budget Bureau boards, on the other hand, are made up entirely of the "continuing employees" in actual charge of the coördinated activities in the departments; they have as chairmen and as secretaries persons from their own number and they create no new operating units or separate staffs.[6] Although dependent for their success largely upon voluntary coöperation between administrators in different departments, they have the advantage of being organized directly under the Budget Bureau and possess the Chief Executive's authority to enforce a reasonable degree of accommodation where jealousy and particularism attempt to assert themselves.

Both the device of interdepartmental committees and the function of the Budget Bureau as a searchlight agency for the supervision and study of the administrative machine as a whole might well be applied to the administrative problems encountered in such a field as public health. The Budget Bureau itself might be enlarged so as to assume this broader area of relationships or a separate agency of general administration might be established in close connection with it. If the United States Bureau of Efficiency could be reorganized so as to take more of a statesmanlike and less of an accounting attitude toward problems of administration, and could be put in harmonious if not subordinate relations with the Budget Bureau, it might serve such a purpose.

The most recent bill for general administrative reorganization, based upon the failure of the omnibus plan defeated in 1925, provides for a continuous organ for consolidation and transfer of bureaus.[7] But it is clumsily constituted as a committee with a paid chairman appointed by the President and four members of Congress—two from each House. And it evidently is designed to recommend transfers and consolidations only, rather than to consider the various alternative devices of coördination and *ad hoc* coöperation.

The proposal of a bureau of general administration is in no sense novel. To students of comparative government, the example of the British Treasury is at hand—a staff organization directly under the Prime Minister which combines general oversight of budget activities with searchlight and investigative functions for the purpose of promoting and maintaining the most effective and economical organization and operation of the whole administrative machine.[8] The same sort of agency has been suggested for the State of New York in two of the most careful studies of state administration which have been made in this country,[9] and it has been proposed by Dr. Cleveland and others for the national government.

Consolidation and coördinating committees do not by any means constitute the only method of producing better administrative relationships. The detail of personnel, loan of equipment, or both, from one national agency to perform a specialized function for another agency is a device which, as we have seen, has been applied to immigration inspection and might well be extended to other appropriate situations. So also the assigning of one unit to perform work on contract for another unit has been tested in several cases and has proved successful. And the simplest device of coördination, that of the liaison officer, brings the desired results in many situations.

It is significant that most of these coöperative devices

have been built up mainly between bureaus and divisions within the same Cabinet department. To establish them with adequacy throughout the whole administrative establishment will probably require interdepartmental oversight. Yet the proper organization of the public health activities in the federal government need not wait upon this general reform. Much has already been done by voluntary coöperation.[10] And it is possible that the coördinating machinery might be considerably expanded. In any case it is essential to view the work of health reorganization as one of establishing varied relationships with both horizontal and vertical lines of contact and as a continuous task rather than as a simple and single act of transfer and consolidation.

The Allocation of the Medical and Health Units.—With these principles in mind we may proceed to discuss the proper relation of each federal health unit to the general administrative structure. Considering them in the order in which they have been described in previous chapters, we are faced at the outset with the question as to whether the services of curative medicine should properly be included in a consolidated public health organization. There are students of the problem who would exclude from public health the management of hospitals and care of the sick.[11] But this would seem to be a short-sighted view. It is not necessary to predicate any wholesale growth of state medicine to prophesy that curative and preventive medicine as time goes on will move closer together rather than farther apart.[12] In the case of more than one disease now being dealt with as a public health problem early treatment and cure are inescapable elements in the program of control. The Army and Navy have long combined medical and hospital care with sanitation as organic parts of a single program of health promotion. The widespread assumption by the government of curative work is not so likely to occur as the gradual assimilation of preventive technique and method to the regular ministrations of the private doctor, nurse, and hospital. But

whatever the precise development, it would seem to be elementary wisdom to maintain and to encourage close working relations and interchange between all governmental activities dealing with the problems of human disease and defect, whether from the viewpoint of care and cure or of prevention and public control.

The Marine Hospital Service.—The marine hospital unit in the Public Health Service, although the parent of the chief civil health agency in the national government, is engaged in medical work almost wholly curative in character.* Yet its location as a part of the Public Health Service has never been seriously questioned. In none of the eleven or more proposals for reorganization was its removal suggested. This has been true in spite of the fact that an important part of the plans of the Joint Committee on Reorganization, as well as the influential study by Dr. Willoughby, provided for the concentration of the various services in behalf of the merchant marine under an assistant secretary in the Department of Commerce. Secretary Hoover also has heartily indorsed such a transfer and on more than one occasion has pointed out the duplication and confusion caused by the fact that under existing arrangements an incoming shipmaster must deal at the port with fifteen different federal officials in nine separate departments.[13]

The exception of the Marine Hospital Service from such consolidation of aids to maritime commerce seems to have been based on the recognition that it is in fact more closely bound up with health than with shipping operations. The marine hospitals and dispensaries deal directly with the individual seamen rather than with ship owners and masters. In their medical work for seamen the Service hospitals

* The failure to provide for the merchant seamen the combination of preventive and curative medicine which characterizes the Army and Navy is due not to any lack of willingness on the part of the Public Health Service, but rather to the impossibility of securing the continuous control of personnel necessary for preventive activities. For further explanation of this fact see Chapter IV.

serve as important agents for the early detection and isolation of exotic diseases—forming a sort of auxiliary line of quarantine against disease importation.[14] At the smaller ports, moreover, the officers in charge of marine hospitals often combine their regular function with inspection of immigrants and, occasionally, with quarantine work. It should be noted, furthermore, that the sailors' principal maladies are the venereal diseases, the control of which by prompt and scientific care is an important part of the national, state, and local public health program. Thus the care of such merchant seamen has very real connections with the control of diseases at the ports and only schematic relations to the other federal agencies dealing with maritime commerce.

Although these considerations justify the location of this activity in the health bureau, its relation to the other merchant marine activities should be reorganized through devices of coördination. The existing Budget Bureau machinery of regional (corps area) coördinators and federal business associations organized in important cities serves adequately for the promotion of such relationships. Of most importance are the common use of physical equipment and a possible unified housing of the marine services at the ports. The reports of the Director of the Budget indicate that such coöperation is already being promoted.[15]

Army and Navy.—The early proposals for national health reorganization included the Army and Navy Medical Departments as bureaus in a Cabinet department (Dr. Bowditch's 1876 plan) or as constituent members of a health board (National Board of Health 1879-83). But with the growth of the Marine Hospital Service and its gradual recognition as the primary national health agency the military and naval medical services have been omitted from reorganization plans. And in such proposals as those of Senators Owen and France, which grant power to the President to transfer health units from other departments to the

newly created health department, these two units are specifically exempted from such authority to transfer.

The decision in favor of population group rather than nature of specialized service as a basis for allocating the military medical departments is undoubtedly sound. Military and naval operations in peace, and especially in war, involve a direct system of control and discipline over the entire personnel and the necessity of rapid mobilization and movement on as nearly a self-sufficing basis as possible. Similar requirements are involved in the occupation of isolated posts or naval vessels and stations. These requirements dictate that medical service and sanitation shall be supplied from within the organization rather than obtained from the outside.*

The question remains as to what coördinating machinery should be established between the Army, Navy, and chief civil health agencies. Our earlier description has revealed that the *Medical Index* and Surgeon-General's Library, as well as the Exhibits Section of the Army Medical Museum, have only accidental connections with the Army Medical Department. If an enlarged and comprehensive civil public health agency is to be created it would be the part of logic to transfer these activities to it. But in these matters a guaranty of continuity and of the maintenance of efficiency is paramount. Before any transfer is authorized there should be definite assurance that the *Index,* Library, and Museum will be continued in the same tradition of thorough-

* The proposal contained in the reorganization plan prepared by Mr. Walter Brown, revised by the Harding Cabinet, and submitted to the Joint Committee on Reorganization, in favor of the consolidation of the War and Navy Departments into a Department of National Defense did not provide for any actual consolidation of the two medical departments. But a merger of the two Cabinet departments would undoubtedly result in coördination and joint use of some of the medical and sanitary staff facilities. The particular change would not, however, affect the civil health organization in the national government in any significant way. The plan, as noted previously, was vetoed by the Joint Committee and did not appear in its final report.

ness and excellence established under military medical auspices. If no such guaranty is possible, the detail of military personnel to carry on the work under the civil agency or the physical location of these services to be readily available to both civil and military agencies would accomplish practically the same results.

Both Army and Navy have highly developed statistical and epidemiological offices, elaborate agencies for laboratory and other scientific research, and extensive field organizations for the combating of communicable and other diseases within the population under their control. The unique combination of preventive and curative activity enables them to carry on important field experiments such as universal typhoid vaccination and venereal prophylaxis—all but impossible in the civil population. It is important that some definite coöperation between these scientific activities and those of the other health and medical agencies be maintained. For this purpose there is need of an *ex officio* interdepartmental coördinating board on medical and sanitary research constituted on the model of the Budget Bureau boards. Its basis may be said already to have been laid in the advisory board established in connection with the Public Health Service Hygienic Laboratory.*

For the coördination of the hospitalization facilities and activities of the Army and Navy with those of other federal hospitals there already exists a Budget Bureau coördinating board. At present it is constituted from representatives of the Medical Department of the Army, Bureau of Medicine and Surgery of the Navy, The Public Health

* This committee should have, however, as its members, the actual heads of the scientific work rather than heads of departments. The precedent of the Hygienic Laboratory board might well be followed by having certain non-governmental research specialists appointed in addition to the representatives of government departments. It should be so constituted as to share with the National Research Council the investigation so far as the federal government participates in such central supervision of national sanitary and medical research and work.

Service, St. Elizabeth's Hospital, the National Home for Disabled Volunteer Soldiers, the Office of the Commissioner of Indian Affairs, and the United States Veterans' Bureau. Practically all of these agencies maintain post or field hospitals for general and short-term cases, general hospitals for more serious cases, and some specialized hospitals and sanatoria for the tuberculous, mentally diseased, etc. It is in the last of these types that there are extensive possibilities of combined use of facilities as opposed to duplication of plant and expert personnel.

St. Elizabeth's Hospital, which treats the mentally diseased cases transferred to it by the Army, Navy, Public Health Service, Coast Guard, federal prisoners, Panama Canal Zone, National Home for Disabled Volunteer Soldiers, Indian Office, District of Columbia, and Veterans' Bureau represents a unification of specialized treatment carried on by contractual arrangement. The superintendent of the institution is appointed by the Secretary of the Interior, to whom he renders an annual report. This is the extent of supervision by that or any other federal department, although there is a board of visitors appointed by the President on which the Army, Navy, and Public Health Service are regularly represented. Officers from these services are frequently detailed to St. Elizabeth's for training and specialized work. It serves as a hospital for all the mental cases of the national medical agencies except the Veterans' Bureau, which maintains its own mental hospitals as well as assigning some cases to St. Elizabeth's. There seems to be no good reason why this hospital should not be transferred to the principal civil health agency, where it would continue its specialized care of the mentally diseased on contract in behalf of the other federal medical organizations. Its transfer would reduce by one the separate federal hospitalization agencies in need of coördination. An active and continuous hospitalization coördinating board might well discover from time to time other specialized services

which could be furnished by one of the chief agencies to patients of the others on a contractual basis.*

Finally, the Army and Navy medical services need to be synchronized with the civil health services in the matter of personnel. If the suggestions made in the following chapter in favor of a number of corps with equivalent grades and salaries be adopted there would be a clear advantage in having an interdepartmental coördinating committee on commissioned personnel. Such machinery would promote the conception of a common national medical and nursing corps, facilitate arrangements for interdepartmental transfers, provide for a unified reserve corps, and facilitate concerted efforts for the recruiting and training of future corps members. It might be organized with subcommittees containing representatives of each of the various corps from the four services. And it might properly include in its membership a representative from the Civil Service Commission.

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* Practically all of the reorganization plans have provided for the transfer of St. Elizabeth's to the enlarged civil health service. Several, including that of the Joint Committee, have recommended a similar transfer of the Freedman's Hospital and Columbia Institution for the Deaf. See *Report of the Joint Committee*, pp. 13-16. But considering that the Columbia Institution is principally educational, its transfer should be to the Bureau of Education. The Freedman's Hospital serves primarily the District of Columbia population, and the suggestion of Dr. Willoughby that it be turned over to the supervision of the District government would seem a sounder arrangement, especially from the budgetary point of view. See Willoughby, *Reorganization of the Administrative Branch of the National Government*, pp. 249, 258. See also *Tobey*, pp. 280-283.

The World War, as our study revealed, showed the wisdom of providing in advance some simple but adequate skeleton organization for the coördination of training camp activities to be expanded in the event of war. The dual organization of the War Camp Commissions on Training Camp Activities with careful liaison between its sections and the Surgeon-Generals' Offices of Army and Navy was a distinctly successful piece of machinery which should be revived in skeleton form. The creation of the Interdepartmental Social Hygiene Board and other attempts, such as the Presidential order of July, 1918, under the Overman Act, to coördinate the Commission's work with the federal civil

The Veterans' Bureau.—The causes and reasons for the present organization of the medical, educational, and insurance services to the World War veterans in an independent bureau have been fully analyzed in previous chapters (VII and VIII) and need not be repeated here. The adoption of the population group rather than type of service principle seems in this case to have considerable practical basis.

In the minds of some of its sponsors, however, the solution given in 1921 was provisional only, to be followed by the creation of a department of public welfare in which the veterans' services would form a major division and would again be in close association with the Public Health Service and the activities now under the Federal Board for Vocational Education, both of which were to be transferred to the new department. Such a disposition of the Veterans' Bureau was made in the Cabinet revision of the Brown plan and the final plan of the Joint Committee on Reorganization.[16] But to such an arrangement both the health and educational authorities objected strenuously. And it was to a considerable extent their objections that led to the withdrawal of Congressional support from the whole reorganization plan.[17] The educational and health groups have, with reason, desired to avoid association with an agency with such unsavory political traditions and whose inevitable relation to powerful political groups is likely to cause a frequent recurrence of politics in its management. They have also disliked to be associated in the same department with a bureau whose annual expenditures are so huge and whose equipment and personnel are so extensive as to make it necessarily the dominating partner of any department in which it is placed. So also the need for clear location of

health activities were not so successful. The situation could be met satisfactorily by creating a three-headed rather than a dual organization with the civilian section represented by the Public Health Service which would have the task of supervising the various extra-cantonment activities in which it took a leading part during the World War.

inescapable responsibility which dictated the independent organization of all veteran services would furnish a reason for continuing it in its present position. Thus the solution suggested in 1921, rather than the later proposals, would seem to be wisest, at least, while the veterans' administration remains such an extensive operating unit* The relation of the Veterans' Bureau to the other federal medical agencies, as in the case of the Army and Navy, must rest on devices of interdepartmental coördination. Already it is a member of the Hospitalization Board, of which its present director is chairman. It should have representation on the coördinating board on medical and scientific research, providing one is created, and if, as seems likely, there is instituted for it a commissioned corps personnel system, it should be a member of the proposed interdepartmental personnel committee.

The Indian Office.—Our analysis of the Indian medical service indicated that its primary needs were for a more adequate field personnel and staff organization. It was there suggested, also, that these might be provided by the creation of a commissioned corps for medical and nursing personnel and the expansion of the central medical and health division in the Washington office, or that they might

* The need for establishing a clear line of responsibility for veterans' administration would seem to be a drawback to the suggestion made in the Willoughby plan for uniting the Veterans' Bureau, the Employees' Compensation Commission, and the Pension Bureau, into a non-Cabinet pensions service or department (the Pension Bureau now, in addition to war pensions, administers the federal civil service retirement act). On the other hand, the suggestion made in more than one place that the National Home for Disabled Volunteer Soldiers be consolidated with the Veterans' Bureau seems to be sound in principle and practicable (especially since the passage of the recent legislation under whose terms veterans' hospitals are receiving as patients those enlisted in other wars). Already there is considerable joint use of property. This consolidation would not affect the relation of either to the chief civil public health agency. (See Willoughby, *The Reorganization of the Administrative Branch of the National Government*, pp. 269-271.)

be supplied by the detail of Public Health Service personnel to the Indian Bureau under such an arrangement as now exists for the medical inspection of immigrants—a device which would automatically place the Public Health Service staff facilities at the disposal of the Indian Bureau. Another alternative, which seems to have been implied in the preliminary reorganization plan submitted to the President by the Chairman of the Joint Committee on Reorganization and submitted to the Joint Committee by the President and Cabinet, is the partition of the various services now consolidated under the Indian Office and assignment of the health work directly to the Public Health Service, school supervision to the Bureau of Education, etc.[18] This abolition of the special population group principle seems not to be favored by those most intimately acquainted with the problem and is not advisable for the immediate future, at least.[19]

The many inefficiencies of the Indian Office are due mainly to politics and neglect rather than to bad organization. And it would seem wise from the viewpoint of economy to develop the system of detail of medical and sanitary personnel from the Public Health Service rather than to duplicate both its staff and field organization in the Indian Bureau. This was inaugurated under the 1926 reorganization of the Indian medical service by the detail of Public Health Service officers to serve in supervisory positions. As the various special services to the Indian population are reduced the health activities will gradually be turned over to the states.[20] The Public Health Service, because of its close working relations with the regular state and local health agencies, would be in a better position to promote this transfer of supervision than would a separate Indian health service.

In connection with plans for general administrative reorganization the question has arisen as to the proper location of the whole Indian Bureau. Of its various services to the

Indians, which include education, agricultural promotion, health, domestic science training, law enforcement, and property management, the last-named task is probably most extensive and difficult. The present location of the Bureau in the Department of the Interior is, therefore, the sound one. This is especially true if the Interior is to be made over into a department of public domain and public works.* The specialized educational as well as health services might well be provided for by detail from the appropriate bureaus. But neither education nor health is of enough importance to justify the location of the entire Bureau in a new department of education and health. As has been suggested in a previous chapter, the work with the Alaskan natives by the Bureau of Education is very much like that of the Indian Office and might profitably be transferred to it.

The Territories and Dependencies.—The organization and supervision of the health services in the territories depend upon the extent and the nature of general federal control over the local and insular governments. For purposes of practical convenience it is likely that the smaller and distant naval stations such as Guam and Samoa will remain under the direct administration of the Navy Department, although a civil administration would in many ways be superior. But the Virgin Islands, the Panama Canal Zone, Porto Rico, Hawaii, the Philippines, and Alaska (assuming the transfer of the supervision of Alaskan natives to the Indian Office) will probably continue to develop increasingly autonomous governments of which a health organization will be an important part. The activities of the national government consequently will be those of advice, demonstration, centralization of information, and temporary aid rather than of direct administration. In the field of public

* The American Engineering Council after a two years' study of federal organization has recently renewed its plan for transforming the Department of Interior into a department of public works and domain. See *New York Times* Jan. 15, 1927, p. 17.

health this means that the relationship between the national government and the territorial administration is quite similar to, although more extensive than, the coöperative relations maintained between the Public Health Service and the state health departments.

There is at present no systematized or unified federal organization for the supervisory and coöperative work in the dependencies. Minor tasks in relation to some dependencies are performed by the Bureau of Insular Affairs in the War Department (a relic of the Spanish War); some slight relation is maintained between others and the Interior Department; the Navy has charge of a few of the least important dependencies and of the Occupations; the Public Health Service and other federal bureaus have particular relations established by the accident of circumstance. Dr. Willoughby has proposed the transfer of supervision of all territories and dependencies, including the Indian reservations, to a bureau of territories in the State Department.[21] But it is doubtful whether the creation of a special unit with its own field officials is at all necessary or wise. A more economical and satisfactory machinery would be an office of territories with practically its entire staff and all of its field personnel serving on detail from the regular federal civil or military agencies. The executive officer and physical location of such an agency might be under the State Department or outside of the Cabinet and directly under the President.* This would provide a more sympathetic and fully as expert and economical supervision of territorial affairs as is now possible and would help to unify the activities of the national government in an important field. The Public Health Service is fitted by the organization and training of its

* The recent report of Mr. Carmi Thompson, special investigator of the Philippines for President Coolidge, suggests the replacing of military by civil authorities in the administration of the islands and "the transfer of the administration of all these overseas possessions to a special insular bureau or to an independent establishment reporting directly to the President."—*New York Times,* Dec. 23, 1926, p. 7.

personnel, its special quarantine experience, and its interest in the exotic diseases existing in most of the dependencies to serve as the health unit in such a supervising office.

The District of Columbia calls for exceptional treatment. At present its Health Office under a chief appointed by the District government (Board of Commissioners) is from the administrative point of view as completely autonomous as a state health agency. But the federal government has a unique and growing interest in the health and working conditions of its employees, who form a large part of the population served by the District Health Office. It would be of great practical advantage, therefore, if the local health officer, and perhaps his chiefs of divisions, were detailed from the Public Health Service. By such a coöperative arrangement considerable economy could be effected in the joint use of laboratory and other facilities, the way would be open for a much more adequate health promotion program among the federal employees, and the possibility would be afforded of making the City of Washington a model demonstration area for municipal sanitation.

Quarantine.—The maritime and interstate quarantine activities of the Public Health Service would unquestionably be included in any enlarged health unit. So also the present arrangement for the medical inspection of immigrants and alien seamen would be continued.* The present tendency to move the work of medical examination from American ports of entry to the ports of embarkation in Europe and the Orient in no sense disturbs this arrangement, since the

* Dr. Willoughby has suggested that the entire Immigration Service (a bureau in rank) in the Department of Labor should be transferred to the enlarged Public Health Service, on the theory that the main administrative task of this agency is examination and inspection of incoming aliens. But the close connection of naturalization to immigration, the growing necessity of regulating quotas in relation to the whole problem of domestic labor supply, as well as the various non-medical features of examination of immigrants, would indicate that its present location in the Labor Department is the wise one.

Public Health Service already has officers located in foreign ports to carry on quarantine activities.

The Regulation of Food and Drugs.—The federal activities in connection with the food and drug supply present one of the most difficult puzzles of interbureau relationship. Logically, the promotion of the purity and of the nutritive value of what people eat and drink is a sanitary problem of the first magnitude. But, on the other hand, health is only one of the aspects of governmental interest in the edible products of the soil. The Department of Agriculture combines investigation, regulation, instruction, and aid in the production, marketing, and consumption of farm products. It might be called a huge department of food. Not only does it direct its own activities from Washington, but it is the coördinating head of a system of state agricultural experiment or research stations and of a coöperative field force of county extension agents who carry instruction, demonstrations, and advice in agricultural and home-making methods (including matters of hygiene and sanitation) to the individual farm homes throughout the land.

Thus we have presented the choice between the location of units engaged in the hygienic and sanitary aspects of agriculture and food products in a health department or in an agriculture department. At present the latter principle seems to have prevailed. The concentration, however, is not complete. Various aspects of fish culture are united in the Bureau of Fisheries in the Department of Commerce, although canned fish and marine food are regulated as regards adulteration and purity by the Food and Drugs Division in the Department of Agriculture. The protection of shellfish against contamination has presented an especially puzzling problem of jurisdiction between these two agencies and the Public Health Service, the latter dealing with the problem naturally as an aspect of stream pollution. Recently the Public Health Service, by agreement with the other federal agencies, has assumed the active leadership in this matter.

The control of drinking water on interstate trains and vessels is under the supervision of the Public Health Service, but bottled drinking or mineral waters come under the Food and Drugs Regulations administered by the Department of Agriculture. The problem of a pure milk supply has been dealt with by the Public Health Service coöperating with state and local health agencies, by the Dairying and Chemistry Bureaus in Agriculture and, in a minor sense, by the Children's Bureau. For convenience in administration drugs were included with food in the Food and Drugs Act. But similar, although more complete, regulation of viruses, sera, and toxins in interstate and foreign commerce was given to the Public Health Service.* The supervision of narcotic drugs through taxation was assigned to the Internal Revenue Bureau in the Treasury Department. The importation of narcotic drugs, on the other hand, is regulated by the Customs Division in the same Department, acting under the regulations imposed by an *ex officio* Federal Narcotics Control Board, consisting of the Secretaries of State, Treasury, and Commerce. The Bureau of Home Economics in the Agricultural Department operating through the extension agents renders advice and information to the farm mothers in all matters affecting domestic economy, including nutrition and home hygiene. In this field they come very close to the activities of the Children's Bureau and, especially, the coöperative system of instruction of mothers under the Maternity and Infancy Act. So also some of the extension work and other activities of the Department of Agriculture in relation to farm drainage have come close to duplicating the rural sanitation activities carried on under the Public Health Service.

The present arrangements thus involve considerable over-

* Sera and toxins for animal diseases are under control of the Bureau of Animal Industry in Agriculture. The laboratories in the Army Medical Department manufacture and distribute typhoid vaccine for the use of their own and other federal agencies.

lapping and likelihood of duplication, especially in matters of health instruction. But it is not at all clear that these difficulties would be reduced either by any more complete consolidation of food and farm hygiene activities in the Department of Agriculture, or by the removal of all health and sanitary aspects of this Department's work to a health department or bureau.* The only possible transfer to the Department would be that of virus and sera control from the Hygienic Laboratory to the Chemistry Bureau. In consideration of the intimate relation of these biologic products to public health administration and research such transfer would probably be an error. For administrative convenience the control of narcotic drugs must remain in the taxation agencies of the Treasury.

On the other hand, the removal of any of the agricultural health activities would be impracticable. Our previous analysis has indicated that meat inspection and milk investigations are closely bound up with animal husbandry and the economic aspects of dairying. So, also, nutrition investigations in the Bureau of Home Economics are closely related to the other aspects of economy in domestic handling of food. This and other functions work in close coöperation both with the extension work and the Office of Experiment Stations of the Department. The Food and Drugs Division is tied up less than these with the other activities of the Department. But according to reports of its chief, if funds are forthcoming, there is an opportunity of uniting investigations in food utilization with the regulation activities. This would result in a closer organic connection of the Bureau with the Department. In fact, there is good reason for the location of all phases of food production and use

*Another alternative, that of transferring the health bureaus to the Department of Agriculture, seems not to have been seriously suggested. And, although Agriculture has as much claim as any existing department to health hegemony it would be a quite improper addition of an irrelevant special activity to its otherwise closely correlated functions.

in the same department. In our opinion the advantages outweigh possible gains from the removal of some of them to a health agency.[22]

Objection has been raised from time to time to the union under one organization of the police regulation of food products and the encouragement of food production and profits. But the experience of the Division of Food and Drugs indicates how coöperation with the industry in demonstrating practicable methods of obeying sanitary laws in production may prevent rather than punish infractions of the law.* If we examine the organization of state agencies in this field of food control we find an almost equal division between states where food and drug regulation is under the state department of health and where it is under separate auspices or in the state agricultural department.[23]

If transfer of agencies is not the means of meeting the situation, correlation must be employed. For practically all of the instances of overlapping the employment of liaison officers or coöperative devices is sufficient to meet the difficulty.[24] In several cases, such as food, drug, and meat inspection, and nutritional investigations, the need is for unification of plans in the field of research. This means that the Department through the Bureau of Chemistry, Meat Inspection Service, Dairying Bureau, and Home Economics Bureau should be accorded membership upon the Interdepartmental medical and sanitary research board already suggested.† In the case of nutrition research and milk standards

* See, for instance, the account of the combination of prevention and regulation in connection with "maggoty" canned blueberries and "belly blown" sardines as given in the 1926 *Report of the Chief of the Bureau of Chemistry*, pp. 20, 21.

† It should be noted that in the research field also the Bureau of Entomology in Agriculture and the Bureau of Fisheries in Commerce have specialized knowledge and scientific personnel or equipment which happen at times to be of great value in solving sanitary problems. Such incidental relationships are already satisfactorily met by the liaison officer system and specific contractual arrangements for coöperative research projects.

it would probably be wise to create representative subcommittees of this board.

It is possible also that in the matter of health instruction a special interdepartmental committee should be set up on which there would be representatives of the Children's Bureau, Public Health Service, Home Economics Bureau, and Extension Service. From such coöperation there might result a considerable unification of materials of instruction and common use of extension teaching facilities.

Industrial Hygiene.—Industrial or occupational hygiene is another field where there is need for establishing more definite coördinating machinery. As a subject for scientific investigation and distribution of information it occupies a prominent place in several bureaus. The chief of these is the industrial hygiene unit in the Division of Scientific Research of the Public Health Service, which carries on both statistical and field studies into various kinds of occupational disease and hygiene problems. But the Women's, Children's, and Labor Statistics Bureaus in the Department of Labor act as agencies for the publication of investigations in industrial diseases among their respective population groups. The Bureau of Mines in the Department of Commerce performs not only this clearing-house function for the mining industry, but also conducts field studies of its own into miners' health hazards and diseases. Other departments are interested in the occupational health problems of their own employees, notably the Post Office Department, which has a welfare organization in the office of the Postmaster-General.

The solution of the problem of relationships would seem to be, first of all, the recognition of the Public Health Service as the chief agency in this field, possessing the trained staff and equipment for direct scientific investigation. Where, as is now the practice in the case of the Bureau of Mines, field studies are carried on by agencies outside of the Public Health Service, there can be supervising spe-

cialists detailed to them from the commissioned corps of the Service. So, also, the system of detail might with profit be more extensively employed than is now the case in connection with the hygienic aspects of welfare work among the federal employees.[25] Such an arrangement would not only be an economical use of staff facilities, but would increase the opportunities for statistical and field studies carried on by the Service. The clearing-house activities of the other bureaus in this field may be continued, since they do not duplicate each other in personnel or actual research work and each serves a different state and local organization. It might we well, however, to create either an informal interdepartmental committee of the various agencies mentioned above, to serve as a clearing house of clearing houses, or, better, attach such an organization as a subcommittee to the general interdepartmental coördinating board on medical and sanitary research.

Vital Statistics.—In the case of vital statistics the arguments for actual consolidation seem conclusive. This can readily be accomplished by transferring the division by that name in the Census Bureau to the Public Health Service, where it may be joined with the Statistical Division.[26] The latter agency has already provided itself with tabulating machines and statistical experts. The work of the Census Division has no vital or organic connections with the other branches of Census activity. And its collection and tabulation of births and deaths does relate closely to the essential tasks of the Public Health Service. In their collection the Census Bureau depends upon coöperation with state and local officials, many of whom are the regular health agencies who furnish also the morbidity statistics now collected by the Service. The special students of the problems of governmental statistical organization seem to agree that to be most useful statistics should be collected, tabulated, and analyzed by the agency for whose eventual use they are designed. Thus they recommend the administration of birth, death,

and disease statistics by the health officials who use them as a tool for controlling disease and condemn as an unsound principle the alternative plan of organizing statistical work as a separate unit in the government, with the view to economy in use of equipment and specialization of personnel.[27]

Child and Infant Hygiene.—An organization problem upon which there has been much disagreement is that of the proper relation of the work in infant, maternal, and child hygiene now carried on by the Children's Bureau, to the other health and educational bureaus of the federal government.*

The principle upon which the Bureau was originally organized is that of a unified approach to the problems of the child.[28] Its various divisions deal with child and infant health (the latter involving maternal hygiene), with child employment, and with juvenile delinquency, dependency, and defectiveness. Problems connected with the regular school system are left to the Bureau of Education so far as pos-

* Since the Children's Bureau was not created until 1912 it was not considered in the earlier plans for the general reorganization of federal health agencies. Senator France's plan for a Cabinet department of health in 1919 did not specify in favor of transfer of the Children's Bureau or its health activities from the Department of Labor, although executive discretion was given for the transfer of health agencies to the new department after its foundation. In his plan published in 1921 (p. 256) Dr. Willoughby did not disturb the Bureau, but in his testimony at the hearings held by the Joint Committee on Reorganization he maintained that it should be divided into educational and health units and transferred to the two new departments of the same names whose creation he advocated (p. 104). The Brown-Cabinet plan presented to Congress in 1923 proposed the transfer of all but the child employment part of the Children's Bureau to the Social Service Division of the new Department of Public Welfare. The final or committee plan, however, left the Bureau undisturbed. The Kenyon bill for a department of public welfare transferred the entire Children's Bureau to its Social Service Division. The Pratt plan provided also for its transfer to such a department. This proposal was adhered to by Senator McCormick in his 1920 bill embodying the Pratt plan, but was omitted from his 1921 bill proposing the creation of a welfare department only.

sible. Although it has developed largely as an agency of scientific investigation, centralization of information, popular education, and demonstration, in two cases it has engaged more directly in field operations. The first was the administration of the first Child Labor Act and the second the administration of the Maternity and Infancy Hygiene Act instituted in 1921.

Either because there was no other department with functions relevant to its health and welfare work or because it was thought that the child labor problem was the predominant partner in its group of functions the Bureau was originally located in the Department of Commerce and Labor and, later, the separated Labor Department. In its evolution, however, the health aspects of its program, especially since the passage of the Maternity and Infancy Act, have become probably its most important features. And at the same time the problems of child abnormality and delinquency have become more closely allied with health work. If there is to be created a department of health or department of health and education, it would seem to be in the interest of sound organization to transfer the Children's Bureau to it. There is certainly much to be said for the unified approach to the child group in the population. The relocation of the Bureau in close connection with the Public Health Service and Bureau of Education would promote such a union. This is, at least for the present, a more practical solution than the more radical proposals to break up the Bureau and to parcel out its various functions to other agencies on the basis of primary purpose.

The Children's Bureau is based not only upon the administrative theory of the special population group, but also upon the political conviction held by large groups of women and social workers that child and maternal welfare problems were before its creation suffering from comparative neglect, and since its creation have obtained at the hands of its essentially feminine personnel a sympathetic and progressive

development. Any disintegration of its organization or parceling out of its work would, quite justifiably, be viewed by its sponsors as a backward step. To transfer it intact, however, to a department where it would be in association with the chief health and educational agencies of the federal government could hardly be viewed as anything but clear gain.[29]

Such a transfer would encounter the logical objection that the child employment aspects of the Bureau's work belong in the Department of Labor. But as in many other cases we must accept the impossibility of any water-tight division of functions and establish the relationship by coördination. There would in this case be little difficulty in maintaining adequate coöperation by means of a liaison officer system with the Labor Department.

The Form of the Consolidated Health Unit.—Our examination of interrelations of the individual medical and health units reveals that interdepartmental coördinating and coöperative devices are more generally required than actual consolidation of health agencies in one department or bureau. The machinery most essential to the proper organization of the federal health function is, therefore, such a staff agency as has already been suggested, serving as a part of, or closely attached to, the Budget Bureau, directly under the President, and engaged primarily in the promotion, maintenance, and occasionally the enforcement, of coöperative interbureau and interdepartmental machinery. The question remains, however, as to what is the proper position of the enlarged Public Health Service in the general administrative structure.

Practically all the possibilities have been suggested in the various plans presented to Congress. They may be summarized as follows: (1) The retention of the Public Health Service as a bureau in the Treasury Department, or the organization of a group of bureaus related to health under an assistant secretary of the Treasury in that Department; (2) the transfer of the Public Health Service to the Depart-

ment of the Interior, of Commerce, or of Labor to form there a consolidated health bureau; (3) a separate executive department of health with a Cabinet officer at its head; (4) a health unit as one of the three or four main divisions in a new executive department entitled Department of Education and Health, Public Welfare, or Social Welfare. Each of these alternatives deserves separate examination.

Health Bureau in an Existing Department.—The retention of the chief public health bureau in the Treasury Department seems logically indefensible. The Cabinet departments, which form the main basis for national administrative organization under the President, have as their purpose the giving of unified political and administrative direction to the chief functions of the federal government. Aside from the Public Health Service and a few other bureaus located in it also by the accident of history, the Treasury Department represents such a functional unification in the field of finance. Successive Secretaries of the Treasury have realized the inappropriateness of interference in health policies and have withheld their administrative and executive hand. Since there is only nominal and unessential control by the Treasury staff divisions and the assistant secretary in charge of appropriations, equipment, printing, and supplies, the Public Health Service has thus attained to a position of almost actual independence. Several Treasury heads have said, as did the present one (Andrew Mellon) before the Joint Committee on Reorganization, that there is no real relation of the Health Service to Treasury activities, and have either recommended or not objected to its proposed removal.[30] Some persons, however, have defended its present location on the ground that in its isolated position it possesses comparative freedom from political control.[31] This is at best a negative virtue. There is no reason why the same independence could not be maintained in any other department and at the same time the advantages from intradepartmental connections with related activities realized.

Senator Smoot's proposal to create a group of health bureaus in the Treasury is open to the same objections as to that of a single bureau and needs no separate consideration.

The transfer of the Public Health Service to Interior, Commerce, Labor, or Agriculture would in each case associate it with more related bureaus than in the case of the Treasury. But in no instance would the health function be more closely connected with the main purpose of the whole department. Such transfers, consequently, would seem hardly worth the effort. If, however, the creation of a new department, for some extraneous reason is blocked, the removal of the Health Service along with the Bureau of Education to the Department of Labor, and the grouping of these two bureaus and the Children's Bureau under an assistant secretary, would be a distinct improvement upon the present location. Such a broadening of the Labor Department's function so as to become the Department of Labor and Welfare would, however, perhaps be resisted by the officials of the American Federation of Labor, who were influential in having it created and have jealously guarded its integrity.[32]

An Independent Health Unit.—A second main proposal is that of moving the consolidated health service entirely outside the ten executive departments and placing it directly under the President as an independent agency, similar to the Veterans' Bureau. This would seem to be giving it essentially no different position from that which it now actually occupies in the Treasury Department.* And it might result

* For a statement of the theory in defense of an independent agency, note the following by Dr. Frederick L. Hoffman: "The proper official status of a Federal Health Administration would not seem to be a position in the Cabinet, but rather as an entirely independent Federal department, responsible directly to the President. Every position in the Cabinet is primarily political in its nature under our form of government. . . . The introduction of politics into a Federal Health Administration would be lamentable and lead in the end with practical certainty to the defeat of even the best conceived measures of reform."

in an actual demotion of its expert head. One of the chief functions of the Cabinet secretaries and assistant secretaries is to give political headship and direction to the various administrative agencies under their control. To set up an independent bureau would expose its head to the danger of being viewed and treated as a political, rather than as an expert, officer. Furthermore, it is a fair question whether any such independent bureau does not need some political intermediary other than the overburdened President between it and Congress. Although the bureau chief within the executive department is not in all cases free from the partisan system of appointments, there is a distinct tendency for him to become so. Practically all of the bureaus with important health activities have well-established traditions of appointment on a merit basis. The maintenance of this position is of great importance in any reorganization plan.*

An Executive Department of Health.—A third major suggestion is that in favor of creating a separate executive department of public health with a Cabinet officer at its head. The Cabinet now has ten members. Its increase by one, two, or three would in no sense change its character or efficiency as the President's advisory and deliberate committee. The objection to any increases on grounds of the Cabinet's becoming unwieldy may, therefore, be dismissed as trivial. But the question does arise as to whether the addition of an executive department in this direction may

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See Frederick L. Hoffman, *A Plan for a More Effective Federal and State Health Administration* (pamphlet), New York, 1918.

* This is true except for the Indian and Education Bureaus. For an analysis of the position of the bureau chief, see the illuminating articles in the *American Political Science Review* for August and November, 1926, Vol. XX, pp. 548-582, 770-811, by Arthur W. Macmahon. The possibility of creating a multi-member independent board or commission for the federal public health agency is, of course, another alternative. But, since it has not been seriously suggested and is not suited for a function so primarily administrative rather than legislative and judicial in nature, it has been omitted from consideration here. At the present time the political status of commission headships is a matter of great uncertainty.

not lead to demands from other interested groups which have as much right as health to such a position. On the basis of a rational system of consolidation the health agency neither in extent nor in variety of work could be considered to be one of the ten or twelve major parts of the national structure. More properly it may be said to be one of the thirty or thirty-five major divisions of federal administration. Thus it falls somewhat between a bureau and an executive department in size and extent.[33]

The arguments for a separate Cabinet department, however, are often not those for recognizing a group of activities on account of their administrative consequence, but for affording direct representation in the body of the President's chief advisors to an important political or occupational group in the nation at large. This argument was used in urging the creation of the Departments of Agriculture, of Labor, and now of Education. But it would seem a misapprehension of our administrative structure to urge the creation of a health department in order to obtain a high place in the council of the Chief Executive for a politician with some knowledge of the public health or medical profession.

An Executive Department of Health and Education.—This leads us to consider the fourth main proposal—that of a new executive department of human welfare, or of health and education. On the whole, such a plan seems best suited both to the political and administrative needs of the situation. While it would be lacking in perspective to urge Cabinet political representation for health alone, it is essentially reasonable to urge that there be provided in the President's Cabinet a place for a representative of the important groups in the country professionally interested in the humanly constructive activities of education, health, and child welfare. Together they form an interest which is of major importance politically and to be ranked with agriculture, industrial labor, commerce, and defense. Moreover, the group

of bureaus dealing with these subjects taken together are distinctly of Cabinet size and have closely related purposes if not a common purpose.

This does not mean the adoption of the plan of the Joint Committee on Reorganization in the form in which it was originally framed or as presented to Congress. The fatal defect of that proposal was the inclusion of the Veterans' Bureau and a vague number of other such agencies in the proposed department. The proposal here made is the transfer to such a new department of the Public Health Service (with which there would be included the Division of Vital Statistics of the Census Bureau), the Children's Bureau, the Bureau of Education (from the Interior Department), and the activities of the Federal Board for Vocational Education which would be consolidated with the Bureau of Education into an enlarged Educational Bureau. (The Alaskan Division of the Bureau of Education would not be transferred to Education, but, rather, to the Indian Service.) This would make an executive department with three main bureaus.

The Sawyer and other proposals for a department of public welfare created what were called divisions rather than bureaus for these transferred units and proposed that a commissioner of assistant secretary rank be placed in charge of each. This might be urged in the case of the three bureaus here suggested if it were not for the uncertain status of these officials at the present time. There is no doubt that the position of assistant secretary is primarily administrative and that it should form a part of the permanent rather than the temporary partisan group in the national government. But thus far in most departments the assistant secretaries have not been permanent but rather partisan or personal appointments. And not until the line between the expert, permanent employees and partisan amateurs has been drawn more clearly would it be wise to raise the transferred agencies to a group of bureaus each with

an assistant secretary at its head. At present the bureau status will suffice. There would probably be required at least one under-secretary (or general assistant to the Secretary), probably of political status, who in many cases might well be a woman.

It should not be thought that in such a new department there would normally come to its head as Secretary, or as Assistant Secretary, the distinguished educational, sanitary or social welfare leaders of the country. The members of the President's Cabinet need not be, as in England, the party leaders in the legislature. But they are almost invariably chosen from the dominant political party, and, therefore, change with each party overturn, usually with each new President. Generally they are chosen from among the group of active political leaders or trusted friends in the President's personal circle. It is true they are selected with some view to their special comprehension of the work of the departments over which they preside. The Secretary of the Treasury is normally a man with banking or financial knowledge or experience; the Attorney-General is a lawyer; the Secretaries of Agriculture and Labor have some previous affiliation with farm and industrial life, respectively. But they are selected from such specialists as are *also within the circle* of *active party leaders* and *personal friends.* Their functions in office correspond to their experience and qualifications. While they may, after a period of initiation, devote themselves to departmental administrative problems they are engaged to a large extent in maintaining political supervision over departmental activities, in planning and promoting legislation in its interest, and in general political and partisan strategy, as members of the President's chief advisory group. An important part of their work as Cabinet members is the making of political speeches, writing public letters, giving interviews, and sharing actively, under the President's direction, in the tasks of national party and political leadership. Thus the Depart-

ment of Education and Health would in normal times be presided over by some politically prominent leader identified more or less actively with health or educational matters, or on occasion a personal friend of the President especially endowed in these directions. So also the Assistant Secretary, it can be predicted, would be a woman politician rotating with the Presidential changes.

This type of amateur political leadership is valuable. The national functions of education and health need it just as agriculture, commerce, and labor need and profit by it. With health activities scattered about in departments which are primarily engaged in quite unrelated major activities and the chiefs of which are concerned mainly with other political interests, it is not being provided at the present time. But in a new department the actual expert direction would come as it now comes from the permanent chiefs of the bureau.*

* While it is dangerous to make comparisons with other systems of government in these matters, it is interesting to note that the other major national governments have given public health a place in their administrative structure similar to that suggested above. Great Britain in 1919 created a Ministry of Health. But it should be noted that although the British Cabinet varies from a dozen to two dozen members, there are quite a few Ministries with political chiefs who are not members of the Cabinet. Thus the Ministries taken together are more numerous than the Cabinet, being thirty or more in number, and a Ministry does not in structure correspond exactly to one of our ten great executive departments. In variety and extent of work undertaken they are closer to our larger bureaus. It should be noted also that the Ministry of Health as at present constituted includes the function of poor relief. Finally we must be reminded that Great Britain has a unitary form of government in which the national administration performs functions of control and supervision which in the United States are performed by both national and state agencies.

In the British Dominions of Canada, Australia, and the Union of South Africa, health departments have been created in the central governments since the war. But it should be noted that in these countries the services of foreign relations and Army and Navy do not exist as major activities, thus allowing for a development of domestic functions in greater variety.

The Policy-making Organization.—Most reorganization proposals stop with a plan for departmental or bureau rearrangement. But our detailed description of the development of each of the federal health and medical agencies—especially those for the veterans, Indians and Territories—reveals clearly that no complete plan for permanent reconstruction can safely omit the political agencies and forces which shape federal health legislation and thus determine the broad outlines of its administrative structure and operations. Sound organization is not to be produced by a single Congressional statute. It is a continuous and evolving thing. The agencies for making federal public health law, therefore, are an essential determinant of the administrative structure and function.[34]

Congressional Health Committees.—An intensive study of the Congressional process with its caucuses, party or-

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In France with a unitary form of government the twelve or more Cabinet ministries include under their direction practically the whole national administrative establishment. Unlike the United States, these great departments are almost universally subdivided into "directions" or related groups of bureaus each with a permanent administrative chief as director (a political Cabinet is usually associated with the Minister in each department, all of whose members are personal friends or political leaders and change with the Ministers). Thus the French Ministries are groups of "directions." These "directions" correspond in scope and function to the English Ministry or to the occasional grouping of bureaus in our national departments with an Assistant Secretary in charge. The national public health agency in France is organized as a "direction" and joined with social insurance, charities, and housing to form a Cabinet Ministry. In Germany the federal health function is similarly organized as a major subdivision of a Cabinet department containing related activities. And in less important nations this seems to be the distinct tendency.

In fact, the comparative study of national public health organization, especially in major countries with a variety of functions similar to ours, would indicate that public health is one of the twenty or thirty chief national activities rather than one of the ten or twelve major divisions of work and more often than not is found as one of the chief subdivisions of a Cabinet department dealing with such related functions as education, charity, insurance, and social welfare.

ganization, lobbies, rules, and systems of election would lead us far afield. But, in general, health statutes fall outside the category of partisanship and, for the most part, are uncontentious legislation. For such laws it is apparent that the standing committees of the two Houses of Congress are chiefly responsible. It is the standing committees that either frame or receive the drafted legislation for minute examination. Here it is that the plans and programs of administrative chiefs and their expert subordinates are heard through direct testimony. Here also is obtained the advice of experts outside the government. And in committee there is carried on the deliberation and decision which in most cases become later the basis for the deliberation and decision of the legislature as a whole. It is the committee chairman or member in charge of a bill who performs the strategic function of translating the judgments and plans of the specialists into a form which gains their acceptance by the amateurs serving in a representative capacity, thus making possible wise and informed decisions. The quality of legislation, therefore, especially in fields where partisan differences are not so likely to occur, depends largely upon the ability and experience of the standing committees, especially of their oldest members. Able and experienced committees are likely to mean good legislation. Ineffectual committee leadership means poor and at times disastrous legislation.

Neither House of Congress at the present time has a committee on public health, nor are the standing committees which deal with public health legislation usually made up of members chosen because of their interest, experience, or ability in this field. The yellow fever epidemic of 1879 led to the appointment in both Houses of special committees on epidemic diseases. Under that title the House committee existed until 1882 and from 1882 to 1887 as the Select Committee on Public Health. It was then abolished. Since that time almost all health legislation has been referred to

the Committee on Interstate and Foreign Commerce, where it is only an incidental part of the work of that important committee. The Senate special Committee on Public Health and National Quarantine of 1879 became a standing committee which continued inconspicuously until the rather drastic reduction of Senate committees, carried through in 1921, partly to facilitate the legislative operations of the budget system. Since then health proposals have gone to various committees such as Education and Labor, Appropriations, Judiciary, Public Buildings and Grounds.

During the forty-one years of its existence the Senate Committee on Public Health and National Quarantine had a membership averaging eight and one-half (7 to 1896, 6 to 1899, 9 to 1908, 10 to 1910, and 11 to 1920) and a total of 68 different members. Of these, 48 were lawyers, 9 business men, 3 physicians, 3 newspaper men, 2 farmers, 2 professional politicians, and 1 a soldier. Senator Harris served as its chairman for fifteen years (1879-94), proving himself to be a zealous advocate of federal quarantine. Of the later chairmen two—Senator Gallinger and Senator France—were physicians, the latter probably the only man qualified by previous experience to have anything more than the layman's knowledge of the problems of public health. Some expertness was developed in terms of service, since the average length of membership of committeemen was five years. During the eight years' existence of the House Committee there were 25 separate members, 16 of whom were lawyers, 4 business men, 3 physicians, 1 a soldier, and 1 a farmer. The average length of committee service was three and one-half years.[35]

It is plain from this analysis that standing committees on public health in either House would be primarily amateur bodies, yet through occasional continuing chairmen and a somewhat continuous membership they would, in practice, act as a leavening influence upon the ignorance and preoc-

cupations of the other members of Congress. Under present conditions it cannot be expected that either House of Congress will restore its standing committee on public health. But, especially since the passage of the Budget Act, there is a distinct tendency to recognize corresponding administrative divisions in the constitution of Congressional committees. And it is not the least of the probable advantages of creating a department of education and health that Congress would doubtless organize and maintain a permanent committee in each House to deal exclusively with these closely related subjects.[36]

Private Health Associations.—Such an access of expert knowledge in Congress as well as the development of active political leadership through the agency of a Cabinet secretary would bring about a distinct improvement over the present haphazard and disintegrated process of enacting and revising federal sanitary laws. But probably the most potent and constructive agency for the making and criticism of national law and administrative policy exists entirely outside of the official machinery of government. We refer to the organizations of professional health and medical workers. There is in existence a host of such associations. But to a great extent they are federated into four principal groups—the American Medical Association with the country's physicians and surgeons as its constituency; the American Red Cross and the Organization of Public Health Nursing, together representing the nursing profession; the National Health Council, which serves as a clearing house for the national private or semipublic health associations devoted to particular problems such as the Anti-Tuberculosis, Social Hygiene, Mental Hygiene, and Child Hygiene Associations; and the American Public Health Association, consisting mainly of those engaged as public health officials or workers in the various units of government.*

* This is, of course, not an exhaustive list of the various health organizations in the United States. Nor are these four groups mutually

Within these four major groups, or closely associated with them, are to be found most of the expert and constructive public health leaders of the nation. What is more, the high offices in each are usually bestowed upon the ablest leaders and most distinguished scientists. Their permanent committees and continuing officers possess far more specialized knowledge and experience than would a Cabinet head or a standing committee of Congress. They share with the federal bureau chiefs the experience, training, and outlook of most value in framing federal health policies and programs. And their membership throughout the country represents a selection of the most informed and active forces in the general public opinion concerning health matters.

Such a reservoir of expert knowledge and leaven of opinion should be as closely correlated with the official agencies of government as is possible. A large part of the error and confusion in health legislation and attempted administrative reorganization during the last half century has been due to the failure of these great citizen agencies to work out a method of intelligent coöperation with each other and with official agencies in the framing and support of common policies. As a means of providing such harmonious development there is needed first of all a permanent standing committee on federal health activities, which should have its headquarters at Washington, and which in most matters should function through an expert paid secretary and office staff. Such a committee might be simply constituted by appointing or designating three or four representatives from

exclusive. The National Health Council includes in its affiliated groups a Section of the A.M.A., the American Public Health Association, and the Nurses' Organization. But they do represent the four logically differentiated groups: the physicians, the nurses, the workers in the private health associations, and the governmental health workers. The membership of the Annual Conferences of States and Territorial Health Officers and of State and Provincial Boards of Health of North America is included in the American Public Health Association.

each of the above-mentioned groups. This agency would become, in time, the most informed and constructive critic of the federal health administration, the most expert and reliable source for the framing and revision of federal health laws, and the most helpful ally in support of the expert administrators in maintaining their personnel and appropriations against the occasional attempts of the partisan and spoils system to make inroads upon them. Furthermore, it would rapidly become the most powerful agency for educating public opinion to support and promote constructive and progressive national health measures. It is probably not an exaggeration to say that this is the most important first step in the attainment of successful national health reorganization. Its creation need not wait a single day upon the initiative of official authority or upon legislative action.

The services of such an advisory agency in lawmaking must, of necessity, remain quite unofficial and informal. But in the deliberations of administrative chiefs the citizen health organization leadership should be given more formal recognition. Already there is an advisory council for the Hygienic Laboratory which includes, in addition to government officials, citizens outside of government service who are expert in the field of laboratory research. In more than one plan of reorganization it has been suggested that this body be made over into a general advisory council to the Public Health Service. This would seem to represent a clear gain in administrative deliberation and program-making. With the Secretary of the Department as chairman it would include the chiefs of the Health Service and Children's Bureau *ex officio,* three or four other designated division chiefs or officials in other departments appointed by the Secretary, and five or six members, also appointed by him, from outside the government service. For any of its deliberations the Council should be provided with the power to coöpt other experts. The citizen members would serve without salary.

The principal function of the body would be deliberation upon the major problems of national health legislation and administration. More than any other agency it would represent the wisdom of the outstanding sanitary statesmen of the day.*

While Mr. Will Hays was Postmaster-General he brought into being an overhead deliberative body which went even further than the Council suggested above in an attempt to integrate the major political and administrative groups connected with a particular function. It consisted of the administrative chiefs in the Post Office Department, a number of especially qualified outside citizens, and members of the House and Senate Postal committees.[37] It might be a very wise step, in the event of the creation of the Advisory Council and standing committees of Congress as suggested above, to provide similarly for their regular joint conference upon major public health policies. Such meetings would bring together all of the political and administrative leaders and advisers in the federal public health field.

It may be urged that the various boards, committees, councils, and bureaus suggested here as proper elements in a complete and effective federal health structure violate the fundamental organization principle of simplicity. But it should be noted that in the proposed organization definite responsibility for actual administration would be in all cases clearly placed and concentrated. For interchange of ideas, the making of policy, and the promotion of working relationships the organization is complex, it is true, but this is only an adaptation of machinery to fit the very real complexity of the institutional and political forces actually involved in national health policy. For purposes of recapitulation an outline of the suggested reorganization follows:

* Its creation would not destroy the usefulness of the Annual Conference of State and Territorial Health Officers, which deliberates upon concrete and immediate problems usually involving national and state coöperation. The two bodies might well meet at the same time.

THE ORGANIZATION OF THE FEDERAL HEALTH SERVICES

Congress: *Senate Committee on Education and Health*
House Committee on Education and Health

Joint Committee on Federal Health Activities composed of representatives from each of the following:

National Health Council
American Public Health Association
American Medical Association
Organization for Public Health Nursing or the American Red Cross.

The President: *Bureau of the Budget*
Chief Coördinator

1. *Interdepartmental Hospitalization Board*
   Army—Navy—Veterans' Bureau—Indian Office—Public Health Service.
2. *Interdepartmental Board on Medical and Sanitary Research*
   Public Health Service—Army—Navy—Veterans' Bureau—Children's Bureau—Bureau of Chemistry—Bureau of Dairying—Bureau of Home Economics—Bureau of Animal Industry—National Research Council.
3. *Interdepartmental Personnel Committee*
   Public Health Service—Army—Navy—Veterans' Bureau.
4. *Interdepartmental Committee on Health Instruction*
   Public Health Service—Children's Bureau—Bureau of Home Economics—Extension Service of Department of Agriculture—Bureau of Education.
5. *War Camp Commission on Training Camp Activities*
   Army Section—Navy Section—Department of Health and Education Section.

Department of Education and Health
Advisory Health Council

Secretary of Health and Education—Assistant Secretary—Director Public Health Service—Chief Children's Bureau—three other officials named by Secretary of Department—and five citizens outside of federal governmental service named by the Secretary.

The Public Health Service
Office of the Director

1. *Division of Quarantine*
   Foreign and insular quarantine
   Interstate control of epidemic diseases
   Detail to Immigration Service

2. *Division of Communicable Diseases*
   Interstate water supply work
   Venereal disease coöperative work
   Demonstration work in rural sanitation, malaria, trachoma, milk regulation, shellfish control
   Detail to Indian Bureau
   Detail to District of Columbia
   Detail to Office of Territories
   Coöperation with Children's Bureau in administration of Maternity and Infancy Act
   Liaison on milk regulation program with Bureau of Dairying.
3. *Division of Scientific Research and Hygienic Laboratory*
   Control of vaccines and viruses
   Library of the Surgeon-General: *Medical Index*
   Industrial hygiene
   Child hygiene
   Nutrition and pellagra studies
   Mental hygiene
   Epidemiological investigations
   Representative on Interdepartmental Board on Medical and Sanitary Research
   Detail to Bureau of Mines on industrial hygiene
   Liaison with industrial hygiene work of Women's Bureau and Bureau of Labor Statistics
   Liaison with Bureau of Education and Children's Bureau child hygiene activities
   Liaison with nutrition studies of Bureau of Home Economics and of Bureau of Chemistry
   Liaison with Bureau of Fisheries on shellfish sanitary problems
4. *Division of Vital Statistics*
   Birth, death, morbidity statistics
5. *Division of Hospitals*
   Marine hospitals
   St. Elizabeth's Hospital
   Leprosaria
   Representative on interdepartmental Hospitalization Board
6. *Miscellaneous activities*
   (organized with direct relation to Office of the Director or as a part of that Office)
   Office of Administrative Health Practice
   Personnel Office and Committee (may be organized as a Division of Personnel)
   Representation on Interdepartmental Personnel Committee
   Section on Health Education

Representative on Interdepartmental Committee on Health Instruction
Publication of *Public Health Reports*
Annual Conference of State and Territorial Health Authorities.

The Bureau of Education
Office of the Commissioner

1. *Division of City Schools*
2. *Division of Rural Education*
3. *Division of Higher Education*
4. *Division of School Hygiene and Physical Education*
   Representation on Interdepartmental Committee on Health Instruction.
5. *Division of Vocational Education*
6. *Miscellaneous*
   Home Education Section
   Library
   Editor
   Statistical service

The Children's Bureau
Office of the Chief

1. *Infancy and Maternity Division*
   Representative on Interdepartmental Committee on Health Instruction.
   Liaison with Division of Scientific Research demonstrations in rural sanitation, Bureau of Home Economics nutrition studies, and Agricultural extension service.
2. *Division of Child Employment*
   Liaison with Department of Labor
3. *Division of Dependency and Delinquency*

The Way to Reorganize.—A final question obtrudes itself. What is the best method of reorganizing? Should public health reconstitution be made a part of a general administrative reorganization plan or can it better be carried through separately? Should health structure be changed item by item as occasion offers or should there be instituted an ambitious and far-reaching program and a single effort made to push it through intact?* No sure answer can be

* What form of organization of the health service has the most possibilities of later expansion is difficult to determine on the basis of federal experience in other functions. The Department of Labor

made to such questions. The essential first step is to obtain understanding and agreement upon a complete, basic theory of organization, such as is suggested in the preceding pages. Then each change, whether detailed or comprehensive, may be made a step in the right direction. Many of the arrangements suggested above can be brought about by executive and administrative rather than by legislative action. Too much stress cannot be placed upon the need for careful deliberation and final agreement among the great health associations and the heads of the official federal health agencies before Congressional action is entered upon. It may be repeated that the creation of a permanent staff agency representing the health organizations is the first step in this direction. If the groups now interested in creating a department of education and those supporting the Children's Bureau can be united in favor of a department of welfare or of education and health the chances of ultimate success would seem assured. The reorganization proposal should be separated from either financial measures or proposals for change in other respects, in order to obtain the greatest likelihood of passage. Opposition will appear to any proposal for change in health organization. But the anti-welfare and anti-health lobbies in the past have tended

started as a bureau in the Interior Department, later was made a non-Cabinet department with a commissioner at its head, still later was included in the newly established Department of Commerce and Labor and, finally, in 1913, was made a separate Cabinet department. The Departments of Interior and of Commerce, on the other hand, were created out of hand by the transfer of various related bureaus from other departments. The Agricultural Department originated in a non-Cabinet department and was later raised to Cabinet rank. The Navy Department originated in a separation from the War Department. The Bureau of Education in the Interior Department was during its first year or two a non-Cabinet department. An executive department may, therefore, be created *de novo,* start as a bureau, as a group of bureaus in a department, or as a non-Cabinet department. For the evolution of the departments, see Lloyd M. Short, *The Development of the National Administrative Organization in the United States, passim.*

to defeat themselves by their ridiculous and ignorant assertions. More formidable is the inertia of the huge federal governmental machine. But well-organized, continuous, and persistent efforts on the side of better administrative functioning will in the end succeed.

CHAPTER XVIII

THE PUBLIC HEALTH PERSONNEL PROBLEM

A THIRD major problem in the national public health field is that of personnel. The thirty thousand medical and sanitary workers in the federal government are only a small part of the more than half million members of the national civil service and in many respects their problems are only component parts of those of the larger group. Looking at them from another angle, the federal public health officials are members of the national sanitary profession, the great majority of whom are employed by states, localities, and voluntary organizations. The sanitary officials, moreover, are themselves recruited from the more numerous and older professions of medicine and nursing. A thorough consideration of the question of central health personnel, therefore, would involve a study of the general national civil service, of the vexing problems of the whole sanitary profession, and even the difficulties of training and organization of the entire medical and nursing professions.* It is

* This necessary relationship is seen clearly in the recent discussions having their focus in the Conference on the Future of Public Health in the United States and the Education of Sanitarians, held at Washington, D. C., March 14, 15, 1922, the transactions of which are published as *Public Health Bulletin* 126, issued by the Public Health Service. An advisory committee was created by this conference to continue investigations into the recruiting and training of sanitarians. A renewal of the valuable discussions carried on at the conference has appeared in numbers of the *American Journal of Public Health* for May, 1923, June, 1924, June, 1925, and May, 1926. Standing committees of the American Public Health Association and American Medical Association are beginning to look at the personnel question in a broader way than hitherto, and from the angle of medicine an important and thorough study of training has been initiated by a Commission on Medical Education. It is not too much to hope that within the

apparent that within our limitations of space it will be possible to present only a narrow and partial discussion of the federal medical and sanitary personnel, merely suggesting from time to time the larger perspective of professional organization and the public service career into which a more exhaustive study would lead us.

The Public Health Professions.—As in most large organizations the national public health workers may be thought of as forming a pyramid with ascending steps of skill and with different kinds of occupation. At the apex is the small but very important group of persons who as chief administrators of bureaus and their main subdivisions plan, direct, supervise, and execute the various public health services. They may properly be called the general administrative or supervisory group.

Separate in type of work, although often not marked off in previous training or line of advancement, are the comparatively numerous groups of professional, scientific, and technical workers who, in office, field, and laboratory, execute most of the skilled work of sanitary administration. Only in a limited sense may these workers be called a single public health profession. As Dr. C.-E. A. Winslow has warned us, it is essential—

> to recognize at the outset that public health is not a definitely delimited discipline, an individualized branch of science like chemistry or mathematics. It is rather a field of social activity employing diverse groups of specialists for a common aim. When we employ the term public health worker we are using a classification based on objectives rather than on technique, a regional not a functional classification.[1]

The various specialists included under the general term of public health worker are classified by Dr. Winslow as follows: (1) the physician, (2) the nurse, (3) the nutrition expert, (4) the expert in physical education, (5) the den-

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next decade these and other studies will lay the basis for a much more adequate understanding of the problems of the medical and sanitary professions if not give actual direction to their training and organization.

tist and oral hygienist, (6) the psychologist, (7) the chemist, (8) the sanitary engineer, (9) the inspector of food supplies, etc., (10) the bacteriologist and protozoölogist, (11) the entomologist, (12) the sociologist and trained social worker, (13) the statistician, (14) the lawyer, (15) the public health education expert.[2]

Underlying these chief administrative and professional groups, although individually less important, are the financial and accounting experts, the clerical workers, the mechanical and manual workers, the messenger and custodial services. These latter groups, although presenting to the actual administrator at the head of any bureau, such as public health, difficult problems in personnel management, are common to all national and local administrative establishments, and can best be dealt with as a subject by itself. Our discussion will be centered, therefore, upon the professional and supervisory groups.

In the national health units there are to be found divergent if not actually competing systems for the organization and regulation of the scientific and directive personnel. First, there is what is known as the commissioned corps which is applied to the Army, the Navy, the Public Health Service, and has been suggested for the Indian and Veterans' Bureau medical services. Quite appreciably different is the classified civil system which is used for the other health units and to a considerable extent in the Public Health Service itself. A third type of personnel control, quite common in many branches of the national administrative establishment (especially in those with extensive field services), is that where appointment is made by the President and Senate and is characterized by short tenure and selection to posts on the basis of party service, campaign contributions, or personal friendship. Fortunately the health services are almost entirely free from partisan and personal appointment, the one or two cases where appointment is made by the President and Senate, such as the Chief of the

Children's Bureau and Bureau of Labor Statistics having been quite effectively removed from the patronage system by a tradition of professional fitness and permanence of tenure.[3] For our purposes we may include these few exceptions as being operated under the principles of, if not a legal part of, the classified service.

The commissioned corps and classified service systems, although they might and do exist in the same bureau, present points of antagonism which require their careful comparison, especially if there is to be any attempt to unify or coördinate the national health services. Even without such unification it is important to determine which one of them or what combination or compromise between them is most suitable for the needs of the central medical and sanitary organization.

The Commissioned Corps Personnel System.—In an earlier chapter (Chapter VI) we analyzed in some detail the origin, evolution, and problems of the medical commissioned corps of the Army and Navy. There it was plainly the need of accommodating the medical officers to the peculiarities of military organization with its strict division of personnel into subordinate or enlisted men and superior or commissioned officers, with its social cleavage between the two, and with its carefully graded hierarchy of rank, authority, and discipline, which led to the creation of commissioned medical, nursing, dental, and sanitary officers corresponding in grades, titles, and insignia to the other military corps. It is more or less accidental that this same system has been applied to the profession of civil sanitarian. When in 1870, through the influence of Dr. Billings, the physicians in charge of medical aid to seamen were reclaimed from the federal patronage system and organized into a commissioned corps, both the Marine Hospital Service and the Army were providing the services essentially of curative medicine. But in both places the commissioned officer plan has been retained as the means of organizing a corps largely

engaged in the work of preventive medicine and sanitation, a development involving considerable strain on the machinery as originally constructed.* And although the two kinds of medical activity cannot in practice be easily separated, it is the usefulness of the corps system in organizing public health personnel that interests us.

Recruitment and Examination.—The first distinguishing features of the commissioned corps system are the provisions that entrance to it is made only at the lowest or beginning grade (which is in no sense the lowest grade in the actual public health employment group) and that examinations and other requirements limit admission to young graduates of medical colleges just entering upon their careers. The Service regulations [4] read as follows:

> Persons desiring to enter the regular corps . . . must be between twenty-three and thirty-two years of age, citizens of the United States, graduates of a reputable medical college, and they must have served in a hospital for one year, or engaged in the practice of medicine for not less than two years.†

The examination for entrance to the corps is conducted by an *ex officio* board of Service officers. One part of the test is a thorough physical examination. Another and major part is a written examination to determine the candidate's mastery of the work he has done in medical school rather

*The Public Health Service commissioned corps with its grades and titles maintained on a basis of equivalence to the military and naval medical system fits into these fighting services very conveniently in time of war. There is on the statute books an Act (32 U. S. Stat. L. 712) empowering the President to transfer part or all of the Service commissioned corps to military and naval control, a power which was utilized to good purpose during the World War. But this military convenience is in no sense the original nor an important reason for the adoption of the uniformed and commissioned personnel system by the Public Health Service.

†A possible alternative entrance is provided in the regulations. Acting assistant surgeons (persons appointed in the classified civil service to the grade approximating that of the commissioned assistant surgeon) and officers commissioned in the reserve corps, if they have served five years and are under forty-five years of age, may take the examination for a commission in the entering grade of assistant surgeon.

than of the specific knowledge required in the tasks to which he will, if successful, be assigned after entering the corps. A third part of the examination is conducted orally, and according to the official description seems to be an attempt to combine a general information quiz with a mental alertness test.* Whether it serves also as the basis for rating qualities of personality is not disclosed.

All those who obtain a total passing grade are recommended to the President for a commission as an assistant surgeon. This recommendation is tantamount to appointment since the nomination by the President and confirmation by the Senate have become purely formal action. In recent years there has been constantly an excess of vacant positions over successful candidates. Thus there is no occasion for a competitive system of examination. But since priority on the appointment list gives the newly commissioned officer the highest number for later promotion, and since the board almost invariably recommends the candidates to the President in the order of their rank upon the examination, it is to that extent competitive.[5]

The Mobile Corps.—Although the newly commissioned officers in the Army, Navy, and Public Health Service are selected largely on the basis of their work in a medical school, their tasks in the Service are largely those of preventive medicine and sanitation. In addition, the Army and Navy medical officers must also qualify as Army officers

* To quote the description contained in the pamphlet of information for persons desiring to enter the regular corps of the Service: "the candidate is . . . given an oral examination, lasting from one-half to one hour, in the general common school and college branches. Questions on geography and current events are also included. No 'catch' questions are given. The idea of the oral examination is not entirely to discover what the candidate does or does not know, but also to determine the character of his mental processes, whether he has the ability to think and act quickly, and whether he has been using his brain for the purpose of memorizing things or to think with." See Reprint 719 from *Public Health Reports*, Dec. 23, 1921, p. 7. The pamphlet gives sample questions.

with some knowledge of military or naval regulations and practice. The assistant surgeon, therefore, enters at once upon a period of post-graduate training and apprenticeship. This education in service is made possible by the fact that the officer is appointed not to any particular place or position, but to the general service, and is assigned to particular posts by the Surgeon-General. This is known as the mobile or flexible corps system.

The first assignments are to subordinate posts involving a rapid shift to various stations where different types of work are carried on. The exigencies of the disease situation do not allow for any exact regularity in these transfers, but as nearly as it is possible the Public Health Service novitiate is assigned as follows: (1) U. S. marine hospital, five months; (2) quarantine station, four months; (3) immigration station, five months; (4) Hygienic Laboratory, six months—which with another six months or so of field work in public health might be said to constitute a two years' apprenticeship. In the Army and Navy there is at the beginning of service an organized Medical School which now, in the Army, includes field training as well as laboratory and other instruction. The assignment to the Hygienic Laboratory of the Public Health Service is practically the equivalent of these Army and Navy Schools, including as it does extensive laboratory work, reading, and lectures for the young officers.

Transfer of posts does not end with the two years' initiation. There is a general practice of transfer of station for all officers at the end of each three or four years' service. Exception to this rule, however, is frequently made in the case of an officer performing uniquely valuable service in a particular place. But the general principle underlying the mobile corps system is to train a group of officers of all-round experience who can be shifted as occasion demands to places where they are needed. For an organization with such scattered and, at times, isolated posts

as quarantine and immigration stations, periodic transfer has great merit as compared with any plan of permanent appointments to specific positions. In the Service, and even more markedly in the Army, the principle of rotation is applied to the central staff positions also, under the theory that the evils of bureaucracy can be tempered and effective team work promoted by an interchange between giving orders at a central desk and receiving and executing them in the field.

Promotion.—Another distinguishing feature of the commissioned corps system is that of closed or internal promotion, which means that, without exception, the higher positions in the corps, including the directing post of Surgeon-General are filled by promotion from below. Promotion may mean advancement from a position of less importance and responsibility to one of more responsibility and importance. It may mean an advance of salary. In many professional callings it also involves the assumption of a superior title. In most occupations these three kinds of advancement run along together. But in the Public Health Service, although they have some relation to each other, promotion in type of work, salary, and title operate as quite distinguishable features of the personnel organization.

The commissioned officers of the Service all bear titles which correspond in salary and rank to positions in the Army and Navy. These titles or grades with their equivalents in the fighting services are as follows:*

Public Health Service	*Army*	*Navy*
1.	2nd Lieutenant	Ensign
2. Assistant Surgeon	1st Lieutenant	Lieutenant (junior grade)
3. Passed Asst. Surgeon	Captain	Lieutenant
4. Surgeon	Major	Lt.-Commander
5. Senior Surgeon	Lt.-Colonel	Commander
6. Asst. Surgeon-General	Colonel	Captain
7. Surgeon-General	Brig.-General	Commodore
8.	Major-General	Rear Admiral

* It is to be noted that there are only six grades in the Public Health Service. The highest and lowest grades of the military hierarchy are omitted.

Advancement from the beginning grade to that of senior surgeon, in the Service, is by seniority (length of service) tempered by a system of qualifying examinations serving to weed out the plainly and grossly incompetent. At the end of a stated period of service the assistant surgeon comes up for examination for promotion to the grade of passed assistant surgeon. At the end of another period the passed assistant surgeon comes up for examination for promotion to the rank of surgeon. The period is four years for assistant surgeons and twelve years' total service (or eight as passed assistant surgeon) for promotion to the surgeon's rank. The examination (in each case conducted by Service officers) consists of three parts: (1) physical, (2) service record, (3) professional, with written questions relating to the medical and public health field. If a candidate fails to achieve the required 80-per-cent grade he is "eligible for reëxamination at the expiration of one year, but should he again fail he is not allowed a third examination, and will be reported to the Secretary of the Treasury as not qualified for promotion."* An officer so reported is requested to tender his resignation.[6]

With no limitation to the numbers in these grades there is no competitive element in the promotion examinations and it is a rare thing for an officer to fail. To indicate the complete absence of any stagnation in the lower grades

* Actual dismissal from the Service as well as reduction in pay and grade is carried out by a system which protects the recalcitrant officer most carefully. For serious infractions of discipline or misconduct, charges are brought against the officer and he is tried before a board of fellow officers. The proceedings are semijudicial with the right of the accused to be represented by counsel. The board transmits its report to the Surgeon-General, who reviews the findings and forwards them to the Secretary of the Treasury with his recommendations. Finally, the President must approve a recommendation of actual dismissal. Discipline may be meted out in the form of suspension on half pay or without pay, or reduction of the number in the officer's grade. See 1920 Regulations, Par., 294-295, 345, 347-348.

we have only to note that in 1926 there were 33 assistant surgeons, 19 passed assistant surgeons, and 135 surgeons.[7]

Advancement to the grade of senior surgeon is also on a seniority basis, but is not so automatic nor so regular as that of the lower grades. The quota of senior surgeons is limited by statute (37 U. S. Stat. L. 39, Aug. 14, 1912) to ten on active duty. This quota is kept full by a Service board which reviews the records of surgeons in order of seniority, excepting those over the age of sixty-four (the normal retirement age), and promotes without further examination. A surgeon passed over by the board as not qualified for promotion is not asked to resign, but, if the Secretary of the Treasury approves, is "placed in the official register of the service as 'not in line of promotion.'" Thus it may be said that, except for a possible disqualification in promotion examinations and a congestion of officers in the surgeon grade, every officer commissioned as assistant surgeon may confidently expect to rise in time to the title of senior surgeon, equivalent in rank to a Lieutenant Colonel in the Army or Commander in the Navy.

The top grades of assistant surgeon-general and surgeon-general are filled by a different process. The officers who are detailed by the Surgeon-General to serve for a four-year period (or by renewal for an eight-year period) as heads of the administrative divisions of the Bureau are given during their term of office the rank and pay of assistant surgeon-general. The Surgeon-General is in no way limited by any seniority rule in these appointments (except that he may not go below the rank of passed assistant surgeon), and presumably he selects freely from among the active personnel those whose records and experience best qualify them for these important supervisory posts. At the end of their detail to the division headships the officers return to the grade and position in the grade they would have had if they had not been thus assigned.

Arrangement was made by an appropriation measure in

1920 (41 U. S. Stat. L. 174) for the appointment by the Service board of three assistant surgeon-generals at large. The means of promotion is that used for the selection of senior surgeons, except that the board may also choose the Surgeon-General to one of the vacancies at the expiration of his term of appointment. Ex-Surgeon-General Blue is at present the only incumbent of this grade on active duty. There are three others on waiting orders.* Obviously, since there are at most only two positions to fill on the basis of seniority, the promotions from the senior surgeon rank are likely to be those close to the sixty-four-year mark. But with these severe limitations as to number there may be said to be a promotion by seniority up to and including next to the highest grade.

The Surgeon-General is appointed by the President by and with the consent of the Senate. The limitations imposed by regulation and well established custom are that the Chief Executive select for the post an officer from the commissioned corps above the grade of passed assistant surgeon.† In this choice he is not guided by any Service board recommendation or the rule of seniority. As a result we may say that it is the case of a political choice from a group of nonpolitical experts. There is no well-established tendency to pick out the most conspicuous or most

* This is a term used to denote the status of an officer who is temporarily or permanently incapacitated for active service on account of illness, accident, or age.

† Writers point out that whereas the Chief Executive is bound by statute to appoint commissioned officers as a result of recommendations made by a board of Service officers he is bound only by the regulations which he himself legally promulgates to choose the Surgeon-General from the commissioned corps and to choose him for a four-year period. This view is buttressed by an opinion of the Acting Attorney-General in 1911 (see 29 Op. Atty. Gen. 287). But the custom of internal promotion has been unvarying thus far and has given the regulation considerable political force.

Could the President appoint to the surgeon-generalcy a passed assistant surgeon serving on detail as assistant surgeon-general? The regulations would indicate that he could.

the distinguished officer for the post of Surgeon-General. On the other hand, there is no evidence of party affiliation having anything to do with it, and a certain amount of ability and experience is guaranteed by the limitation of selection to the commissioned corps. Whether the appointment shall be for life or, following the system established for the division headships, for four years with a possible four year reappointment, is still a matter of doubt. There have been but five Surgeon-Generals. The first and third died in office, one during his eighth year and the other after twenty-four years of service. The second incumbent retired voluntarily at the end of twelve years. Dr. Blue was the first to be appointed under the four-year regulation and served eight years under this arrangement. Whether Dr. Cumming is reappointed at the end of his second term or is replaced will help to determine which policy is likely to prevail.

Appointment to be Surgeon-General or a detail as assistant surgeon-general is both an advancement in title (though temporary) and promotion in responsibility and importance of duties. The other advancements in rank, however, may not mean any change of duties at all. And promotion from one position to another up the scale of responsibility and importance is made by the Surgeon-General quite irrespective of advance in grade. In the second sense of promotion—*i.e.*, advancement in importance of work—not seniority but fitness, as determined by superior Service officers, is the basis.[8]

Salary and Security.—Advancement in salary, on the other hand, is almost entirely on the basis of length of service and is not directly related to advancement in rank or grade. As now provided under the Act of June, 1922 (42 U. S. Stat. L., 625), which revised considerably the system in vogue before that time, the arrangement of the pay schedule represents a most interesting attempt to organize remuneration for the peculiar needs of the public service and

deserves much more analysis than has thus far been given to it. Compelled by the dislocation of living costs during the war to consider the revision of salaries in all federal employments, Congress in 1920 applied a temporary bonus measure to the six commissioned corps (Army, Navy, Public Health Service, Coast Guard, and Coast and Geodetic Survey) and provided for the appointment of a joint Congressional committee of five from each House which in due season brought in the plan later adopted as the Act of June, 1922. This has been adhered to subsequently as a uniform pay system for the six commissioned services. The debates and hearings reveal this law to be based largely upon the conditions and the needs of the Army and Navy personnel.[9] Especially is this so of the pay period system which was designed to provide steady increments of salary despite the slow advances in rank which now prevail in the Army and Navy. Nevertheless, its application to the Public Health Service is in no sense fortuitous nor unfavorable.

The officer's pay under the Act is the sum of two amounts arrived at by different computations and on different bases. The starting point for the determination of the first part of the salary is a system of pay periods increasing in amount and based upon a combination of length of service and grade or rank (which in the Public Health Service is itself based upon length of service). These periods can best be defined by reference to the following chart:[10]

Pay period	*Officers receiving base rate at each period*	*Base rate of pay*
(First pay period does not apply to the Public Health Service, whose officers enter at the grade above the entering grade for Army and Navy.)		
Second	Asst. surgeons not entitled to 3rd pay period. P.a. surgeons not entitled to 3rd or 4th pay period.	$2,000
Third	Surgeons not entitled to 4th or 5th pay period. P.a. surgeons with 7 years' service Asst. surgeons with 10 years' service.	2,400
Fourth	P.a. surgeons with 17 years' service Surgeons with 14 years' service	3,000

	Senior surgeons not entitled to 5th or 6th pay period.	
Fifth	Surgeons with 23 years' service	3,500
	Senior surgeons with 20 years' service	
	Asst. surg.-genls. not entitled to 6th pay period.	
Sixth	Senior surgeons with 30 years' service	4,000
	Asst. surg.-genls. with 26 years' service.	

(The Surgeon-General is not included in the pay period system. He receives a base pay of $6,000, with no additions for length of service.)

To the base pay in each pay period is added what is called longevity pay, that is, 5 per cent of the base pay for each three years of service. After such additions up to thirty years of total service, when the longevity increase has become an addition of 50 per cent to the base pay, it may increase no further. There is another maximum limit established by the provision that the base pay plus longevity addition for the grades below that of assistant surgeon-general shall not exceed $5,750.

The payment of the second part of the officer's salary is based upon equivalents of food and lodging and is related to the fact of dependency and the increasing and decreasing costs of bringing up a family. The assignment of equivalents of rooms and food is due to the fact that in many army posts and naval stations, as well as in some Public Health Service stations, living quarters and board or subsistence are furnished without charge. A money allowance in lieu of these two items at stations where they are not furnished is necessary, therefore, to maintain an equitable relation between different positions of equal importance.

In the Act of 1922 sixty cents per day, or $219 per year, was set up as the food allowance (or subsistence) for one person and twenty dollars a month per room for the rent or quarters allowance. A novel feature was contained in the provision that for subsistence and quarters allowances the amount for succeeding years should be raised or lowered by the President upon the basis of a certificate furnished him

by the Secretary of Labor showing the current cost of lodgings and food as compared with the calendar year 1922. These allowances are the minimum and are increased with the fact of dependency and the normal expectations of family life.* Their operations can most easily be seen by examination of the following chart:

Pay Period	Subsistence Allowance		Allowance for Quarters	
	Without Dependents	With Dependents	Without Dependents	With Dependents
Second	(1) $219	(2) $438	(2) $480	(3) $720
Third	(1) 219	(2) 438	(3) 720	(4) 960
Fourth	(1) 219	(3) 657	(3) 720	(5) 1200
Fifth	(1) 219	(3) 657	(4) 960	(6) 1440
Sixth	(1) 219	(2) 438	(4) 960	(6) 1440

(The Surgeon-General is given the allowance of the sixth pay period.)

Dependency additions are given to an officer who is married, who has an unmarried child under twenty-one years of age, or his own mother actually dependent upon him for support. While it is seen from the foregoing table that the subsistence and quarters are increased with the assumption of these family burdens, they are not determined exactly by the total number of actual dependents at any time. Rather, the increases presuppose the growth of expenses for children or other members of family through a period of years and then a modest decrease of such expenses as children become self-supporting or parents die. Thus the subsistence and quarters allowances increase with the pay periods until the

* In fact, the assistant surgeon receives a two-room allowance for the first pay period. The one-room provision does not exist in the Public Health Service.

sixth, when they remain stationary in one case and decrease in the other. This trend appears in the longevity pay system also with the thirty-year limit on the triennial increases of pay.

Since the total salary of an officer at any time depends upon the various factors of dependency, rank, and length of service, it is practically impossible to set forth schedules showing the actual money salaries of a commissioned officer for all grades and periods. An approximation to such a picture, however, can be secured by applying the pay system to an hypothetical case of an officer with a normal or typical career. We shall presume that such a person enters the Service at the age of twenty-eight, having graduated from college at the age of twenty-two, from medical school at the age of twenty-six, and is without dependents. He marries at the age of thirty-one, being then settled in his career in the commissioned corps; three children are born in the course of the first nine years, and he is advanced by regular stages to the grade of surgeon, where he remains until the age of sixty, at which time through seniority he is promoted to the grade of senior surgeon. He retires from the Service at the age of sixty-four, to receive three-quarters of his last salary for the rest of his life. To such a career there are few important alternatives. Dependency might be assumed earlier or later or not at all, and there might be no promotion at all to the senior surgeon grade. But these would affect the salary very little. We shall presume also a detail in the middle of our hypothetical officers' career after twenty years of experience to a division headship and the temporary grade of assistant surgeon-general. And finally we will examine the financial effect of a promotion at the age of fifty-five to the coveted post of Surgeon-General for an eight year incumbency, after which he is transferred to the grade of assistant surgeon-general at large. The chart follows:

A Typical Salary Career of a Commissioned Officer in the Public Health Service

Age of Officer	Years of Service in Corps	Total Salary Including Allowances	Promotions and Dependency Obligations
28	1	$2,699	Unmarried. Commissioned as asst. surg. 2nd base pay
29	2	2,699	
30	3	2,699	
31	4	3,258	Marries
32	5	3,258	Promoted to p. a. surg.
33	6	3,258	
34	7	3,358	
35	8	4,038	Advanced to 3rd base pay
36	9	4,038	
37	10	4,158	
38	11	4,158	
39	12	4,158	
40	13	4,278	Advanced to surgeon. Last of 3 children born
41	14	4,278	
42	15	5,457	Advanced to 4th base pay
43	16	5,607	
44	17	5,607	
45	18	5,607	
46	19	5,757	
47	20	5,757	
48	21	5,757	
49	22	5,907	
50	23	5,907	
51	24	6,822	Advanced to 5th base pay
52	25	6,997	
53	26	6,997	
54	27	6,997	
55	28	7,162	
56	29	7,162	
57	30	7,162	
58	31	7,200[a]	
59	32	7,200	

A Typical Salary Career of a Commissioned Officer in the Public Health Service (*Continued*)

Age of Officer	Years of Service in Corps	Total Salary Including Allowances	Promotions and Dependency Obligations
60	33	7,200	Promoted to senior surgeon and 6th base pay
61	34	7,200	
62	35	7,200	Last child through college
63	36	7,200	
64	37	7,200	
65 on		5,400	Retired on three-fourths pay

[a] The total salary for all grades below surgeon-general may not exceed $7,200.

Effect on Salary of Being Detailed to the Position of Division Chief with Rank of Assistant Surgeon-General in 20th Year of Officer's Service

Age	Years of Service	Total Salary	Promotions and Dependency Obligations
47	20	$6,647	Advanced to 5th pay period
48	21	6,647	
49	22	6,872	
50	23	6,872	
51	24	6,872	
52	25	6,997	
53	26	6,997	
54	27	7,200	Advanced to 6th pay period
55	28	7,200	
56	29	7,162	Returned to grade of surgeon and 5th pay period

EFFECT ON SALARY OF AN APPOINTMENT TO THE POSITION OF SURGEON-GENERAL IN THE 28TH YEAR OF SERVICE

54	27	6,997	
55	28	7,500[a]	Advance to surgeon-general

[a] The maximum salary of the Surgeon-General is fixed at $7,500. He would receive this maximum during his incumbency of office. If, however, he is without dependents, his total salary would be $7,179 for the period of his incumbency.

A complete statement of the real rather than money wages received by the commissioned corps members would have to include still other items. Officers are provided free, non-contributory sickness insurance and medical care, insurance against partial and total, temporary and permanent, disability, and an ample old-age annuity, with retirement at a comparatively early age. Under the regulations an officer suffering from any disability appears before a Service board and upon its recommendation he is placed upon "waiting orders," in which status he receives three-quarters of the salary of his grade until his return to active duty or until his death.*

Advantages and Defects.—We are now in a position to appraise the commissioned corps personnel system as applied to public health. It is distinguished from many other occupations both in public and in private life by its complete provision of a life career for those who choose it. From the medical school, without further training than the usual interneship, entrance may be made to the lowest grade. Once commissioned, the young officer is trained in the variety of

* Frequent change of stations involves additional expense, all of which cannot be met by transportation allowances. The present laws and regulations, however, provide for the furnishing of transportation for the officer, his family, and household goods.

The salary is increased when the officer serves at a leprosarium, where his total remuneration is augmented by an addition of one-half of his base and longevity pay and such additional allowances as may be determined by the Surgeon-General.

duties connected with the sanitary profession. From this lowest grade he is guaranteed a steady advance in salary and rank until a maximum is reached late in his fifties. So also, in direct competition with his brother officers, he advances from one post to another with the practical possibility of rising in the line of duty to posts of power and prestige second to none in the field of public health. And whether or not he attains the Surgeon-Generalcy or a division headship he is engaged in work which he knows to be useful and which, granted reasonable aptitude, he is likely to find interesting. In general social position he takes rank similar to that of the Army and Navy officer rather than the undeserved but inferior position of the civil servant. His salary, while modest and perhaps too low considering the long preparation required and ability necessary for its performance, represents the average of the academic and scientific occupations.* Even more than in these occupations his salary is adjusted to increasing and diminishing family responsibilities, dislocations in the cost of living, and the normal hazards of life. He is secure against illness, disability, arbitrary discharge, and old age.

With certain qualifications, therefore, the commissioned corps system appears to be a piece of machinery soundly designed to attract and keep the type of scientific and health worker who seeks some prestige among his fellows and his own satisfaction not in the excitements of a money-making career where the financial rewards and risks are both greater, but rather in the performance of useful and interesting work with a guaranty of continuity and a modest scale of living. Perhaps its advantages may be best summarized by the words of a former assistant surgeon-general:

* The *Annual Report of the Surgeon-General* for 1926 and for years immediately preceding shows that great difficulty is being encountered in securing a sufficient number of candidates for admission to the corps. This is ascribed by the Surgeon-General to inadequacy of the Service salary scale in competition with the opportunities of private practice.

. . . In such a career there is a moderate income and relief from the vexation of bill collecting. In none of them is there opportunity to amass wealth. These positions are honorable ones, there is ample provision for the needs of old age, and when disease or injury incapacitates the medical officer the income does not cease. . . . The career is a hard one, and should not be attempted by a person with the idea that he will try it for a few years, accumulate a little money, and then go into private practice. . . . If one is willing and anxious to do the work for the work's own sake, it is a pleasant and useful career.[11]

On the other hand, there are certain evident disadvantages to the system from the viewpoint both of the individual entering it and of producing the most efficient working mechanism. The mobile corps principle involves a considerable transfer of stations extending throughout life. It means, at times, living in far-away and isolated posts. To people with a strong attraction to a particular city or locality this would prove to be an important disadvantage. On the other hand, to other people the prospect of travel in the line of duty seems to be an attraction rather than a drawback.

Appointment to the general service with the consequent necessity of doing different kinds of work would seem to some to be an important drawback to the corps system. Where officers enter the corps with definitely specialized interests or develop such interests after entrance, the informal rules requiring periodic transfer of posts are vexatious to the individual affected and wasteful of specialized experience, adaptability, and talent.

Another objection to the system, urged from the viewpoint of efficient performance of work, is in connection with the operations of the closed promotion and seniority schemes. It is evident that there are certain dangers in assuring the young officer promotion of rank and advancement of salary if he merely performs his tasks without conspicuous incompetence. To limit the higher positions to those first enrolled in lower positions is a definite handicap

as compared with the selection of the most competent directive personnel from the wider field of the profession as a whole. In measuring these evils we can only match them against the advantage of another sort that the closed promotion system brings: the secure opportunity for advancement guaranteeing in the lower positions ability and zeal of a better sort than can ever be secured for blind-alley positions. To quote from one of the best analyses of this problem:

> The knowledge that the highest posts may be the reward of faithful and zealous service is a force making for day-to-day productiveness far more valuable than any results that may be achieved by the chief executives, however able, with a force but mildly interested in its work. . . . Nor should the fact be lost sight of that the stagnation of the subordinate personnel, which results from the lack of opportunity for advancement, is no less hurtful to efficiency than is stagnation in higher quarters.[12]

Perhaps the major drawback to the commissioned corps system as applied to the Public Health Service is the assumption underlying it that the sanitary profession should be recruited from medical school graduates and that to the medical-sanitary officer should be assigned the directive and supervisory work in the public health organization. We have noted that even in the performance of curative medical tasks in the Army and Navy it has been necessary to organize alongside of the medical corps similar corps of nurses, of dentists, and of veterinarians. So also during the war there was organized a sanitary corps including many nonmedical specialists, although with demobilization the regular medical corps personnel resumed active charge of many sanitary tasks. In the Public Health Service the problem of giving an equitable status to certain nonmedical sanitarians, such as sanitary engineers, has long been felt. And to meet the difficulty there have been devised several makeshifts, the most important of which is the reserve corps.

The Reserve Corps.—During the World War the Service urged strongly the creation of a reserve corps similar to those of the Army and Navy and designed mainly to provide a trained personnel for emergency expansion more satisfactory than the employment of acting assistant surgeons, all of whom had to be secured at the pay of the lowest commissioned rank. The influenza epidemic late in 1918 provided the needed impetus for the passage of an Act by Congress creating such a reserve (40 U. S. Stat. L. 1017).[13]

Under its provisions selection of reserve officers is intrusted to a Service personnel board and consists of an inquiry into general academic and professional training and experience, and of a physical, academic, professional, and personal examination of the candidates for commissions. Although the machinery is thus much like the selection of officers for the regular corps, the requirements for candidacy are quite different. There are no age limits for applicants. Original appointments may be made not only to the lowest grades, but to all grades in the proportion which the present grades in the regular service bear to each other. So also there is not provided for reserve officers any schedule for promotion through seniority to higher grades or periodic increases of pay, nor is there provision for retirement, vacations, or permanent status. The commission itself runs only for five years and may be terminated by the President within that period if he sees fit. Promotions in the reserve are made by a Service board of officers who examine the records of corps members and may, of course, appoint to higher positions from the outside rather than from below.

In another respect there is an important difference between the regular and the reserve corps, in that the President (who issues the commissions for the reserve officers without the consent of the Senate) may commission not only physicians, but also—

sanitary engineers, epidemiologists, pathologists, zoölogists, pharmacologists, bacteriologists, chemists, sanitarians, and others whose qualifications, training, and experience are such as would enable them to perform the duties of the Public Health Service.[14]

For the enlargement of the public health personnel to meet an emergency the reserve corps seems to be a well-designed piece of machinery. If, as has been urged, the state and local health officials enroll in it there will be the possibility of mobilizing the nation's civil health workers with dispatch and efficiency in an epidemic emergency. But one of its first uses was to supply the deficiency due to the lack of nonmedical sanitarians in the regular corps. During the period when the Service had charge of veteran hospital relief large numbers of non-physician specialists were commissioned in the reserve and then immediately called to active duty. Although the temporary advantage created by the discharge of Army specialists made it possible to secure them for work in this capacity, the use of the reserve in this way is no solution of the personnel problem. Without any of the securities against disability and immediate discharge and without the sure promotion or salary increases which the members of the regular corps enjoy, the reserve corps officers are probably in a more unfavorable situation than if employed as members of the classified civil service. We must look elsewhere, therefore, for a means of harmonizing the diversity of training required for a large sanitary unit with the single professional training upon which the commissioned corps has been built up.

The Classified Civil Service System.—For the numerous scientific and professional workers in the federal health service outside the commissioned corps and also for physicians in the federal health units other than the Public Health Service, the personnel organization is that of the so-called classified civil service under the supervision of the United States Civil Service Commission. The primary principle established by the Civil Service Act of 1883 (22 U. S. Stat.

L. 403) and maintained despite its extension during the intervening years so as to include a large majority of the federal civil servants, is that of competitive examinations conducted under the auspices of the Commission for the selection of qualified persons to fill particular positions. Although in the case of professional and technical personnel a part of the examination is often a requirement of certain academic or professional training and a record of experience in addition to written tests, the general practice is to examine the candidates for their fitness to fill specific posts rather than to provide a method of selecting among persons of necessary preliminary training and no experience those most capable of pursuing a definite career. There is no appointment to a general service with subsequent assignments from post to post. The prevailing idea is the selection among those willing to compete for a host of defined positions rather than the organization of careers entered from the outside only at the bottom grade. Normally the qualifications required of applicants for positions high and low in the scale of responsibility do not specify age limits. Persons who have advanced in their professions outside the national civil service may by original appointment obtain positions well toward the top in their fields. So also, persons who have failed outside the federal service can, at an advanced age, in competition, secure positions in the humbler positions available.

A step toward the recognition of the career concept, however, was taken by the Classification Act of 1923 (42 U. S. Stat. L. 1488).[15] Under its provisions the entire classified service (positions coming under the control of the Civil Service Commission) is divided into five general types of occupation called "services." One of these is the professional and scientific service. It, as well as the other great service groups, is again divided into seven ascending grades with titles and salaries attached to each grade. The grades with accompanying salaries are as follows:

Grade one: junior professional. Salaries—$1,860, 1,920, 2,100, 2,200, 2,300, and 2,400.
Grade two: assistant professional. Salaries—$2,400, 2,500, 2,600, 2,700, 2,800, 2,900, and 3,000.
Grade three: associate professional. Salaries—$3,000, 3,100, 3,200, 3,300, 3,400, 3,500, and 3,600.
Grade four: full professional. Salaries—$3,800, 4,000, 4,200, 4,400, 4,600, 4,800, and 5,000.
Grade five: senior professional. Salaries—$5,200, 5,400, 5,600, 5,800, and 6,000.
Grade six: chief professional. Salaries—$6,000, 6,500, 7,000, and 7,500.
Grade seven: special professional. Salary of $7,500.

It will be noted that the grades correspond roughly to the six grades of the commissioned corps in title, salary, and (as is seen by consulting the description of normal duties connected with each) work. The salaries connected with the grades represent a progression from minimum to maximum to be applied through means of efficiency ratings rather than seniority. A profession or class, such as that of sanitary engineers or chemists, is organized with specific positions falling within the various grades. This organization of positions evidently looks to a system of promotions as well as to the establishment of equality of pay and easy transfer between positions with similar tasks. But the Commission has done practically nothing to organize further the promotion aspects of the civil personnel system.

Before the passage of the Classification Act the Public Health Service under regulations promulgated by the President had classified its scientific and professional personnel, including sanitary engineers, chemists, bacteriologists, and zoölogists. The regulations provided further that entrance to these positions should normally be at the lowest grade, and required that the highest grade be filled by internal promotion. In case of exceptional qualifications, however, they permitted outside appointments to the other higher grades. Rules for promotion based upon those existing in the commissioned corps were promulgated. Promotion from Class

VI (the lowest class) to V at the end of two years, from class V to IV at the end of five years, and from IV to III at the end of twelve years, were provided for, as in the commissioned corps, with a Service board to conduct the qualifying examination and with identical regulations as to reexamination and forced resignation in case of two failures. Class II, like the senior-surgeon group in the commissioned corps, was limited to five officers, and Class I to four, each being filled according to seniority. Although the classifications, titles, and salaries fixed by these Service regulations were superseded by the Classification Act of 1923 the provisions for internal promotion evidently are still effective.*

In the professional and scientific personnel outside the Health Service there is no similar organization of internal promotion. This does not mean, however, that the higher positions are always filled by open competitive examination. Under the regulations of the Civil Service Commission the appointing officer (usually the department head) may recommend the promotion of a subordinate official to a vacant position of higher grade, and if the Commission consents to such action the promotion is forthwith made. There are a large number of cases where division and bureau headships have been filled in this way. An important difference in the case of such higher appointments in the classified service is that they are permanent in nature rather than details for limited periods, as is the case of assistant surgeon-generals

* On account of a recent decision of the Comptroller-General the scientific personnel is not given allowances for transportation expenses in changes of station. This is a needless inequity. See *Annual Report of the Surgeon-General,* 1926, pp. 284-285. It should be noted that nurses were put by the Personnel Classification Board, which worked out the details of classes and titles under the Classification Act, in the clerical, administrative, and fiscal service which has a lower scale of salaries than the professional service. The organized nursing profession has protested against this allocation and in the near future it may be changed. The Public Health Service nurses themselves desire the commissional status given to their coworkers in the Army and Navy.

and (perhaps) the Surgeon-General. In many of the scientific bureaus carrying on health work the chiefs have remained in their positions for long periods, some having held office for the entire life of the bureau, as in the case of the Bureau of Entomology.[16] We thus have the contrast between a scheme of promotion to the important supervisory positions limited to corps members, but with an almost invariable system of rotation in office, on the one hand, and, on the other, a system which often throws the top positions open to outside appointments but provides for the permanent service of those selected.

Competitive written examinations are, of course, less adequate tests of ability for these supervisory posts than for subordinate positions, and the Civil Service Commission has coöperated in putting into practice alternative methods. There is, for instance, the non-assembled competitive examination which means in practice an examination by the Commission of the records of the candidates with such documents as will indicate fitness for the task at hand. Also there is provided that in certain cases the appointing officer may make an outside appointment without competitive examination. These conditions are set down in the Commission's regulations as follows:

> Whenever the commission shall find that the duties or compensation of a vacant position are such, or that qualified persons are so rare that in its judgment such position cannot, in the interest of good civil service administration, be filled at that time through open competitive examination, it may authorize such vacancy to be filled without competitive examination, and in any case in which such authority may be given, evidence satisfactory to the commission of the qualifications of the person to be appointed without competitive examination shall be required.[17]

Whatever the means adopted of filling the higher posts it may be said that nowhere is the system of closed promotion established for the professional health personnel outside the commissioned corps. Nor is there any guaranty of

advancement in rank or salary. A man may enter a subordinate position and remain there the rest of his life without promotion or appreciable advancement of salary. Likewise the protections built up for the commissioned corps career are not duplicated in the classified service. Under the Retirement Act passed in 1920 (41 U. S. Stat. L. 614) and revised in 1926 (44 U. S. Stat. L. 904) there is an old-age pension system applicable to the members of the classified civil service at seventy years (sixty-two years for a hazardous occupation) with a maximum yearly annuity of $1,000 and with a contributory provision taking 3½ per cent of the employee's salary. Provision is made under the law for total disability, and there is under a separate statute an award of compensation and medical service for accidents or injuries in the line of duty.[18] But these insurance provisions against the hazards of life are not nearly so generous nor so sure as is the case in the commissioned corps.

A Coördinated Personnel Organization.—With the two competing types of organization applying to the public health personnel the question arises as to which is more suitable and effective. If there is any consolidation or coördination of national health agencies this problem is bound to present itself in an acute form. The establishment of satisfactory relationships between all of the public health workers in the national government faces certain important difficulties. The Public Health Service commissioned corps system is carefully designed to be on a basis of equality with that of the Army and Navy. One of the purposes of the 1923 Classification Act was to establish an equality of grade and salary between all branches of the classified civil service. Neither of the two systems, therefore, can be altered without disturbing relationships of equivalence carefully established.

There are at least four ways of meeting the situation which at one time or another have been suggested. The first would be to leave the systems as they now are, which is no remedy at all for the very real inequity and dissatisfac-

tion which exists. Another suggestion is that of giving up the commissioned corps in the civil health services and including the Public Health Service officers in the regular, classified service. If our analysis is sound, however, it would be a distinct step backward to abandon a personnel system on the whole the sounder of the two. A third alternative is to enlarge the commissioned corps by including in it all of the scientific and professional workers of the health services, as is now done in the reserve corps, and as has been suggested in recent proposals before Congress.[19] This would seem, however, to be a dangerous interference with the mobile corps principle, which is desirable for much of the field work of the Service.

A Professional Commissioned Corps.—A fourth method of meeting the problem would be that of imitating the example of the Army and of creating a group of equivalent corps with a separate corps for each of the scientific or professional groups having a different kind of academic training or degree.

Accepting, with some modifications, Dr. Winslow's analysis of the professions composing the group of public health workers and bearing in mind the corps organization already in existence in the Army and Navy, we would have the following: the medical corps (corresponding to the present commissioned corps in the Health Service), a nurse corps, a dental corps, a sanitary engineers corps, and a scientific or sanitary corps which would include those sanitarians whose training is obtained in university graduate schools of arts and sciences and who receive the degree of Ph.D. or D. P. H. It would include chemists, biologists, entomologists, protozoölogists, nutrition experts (unless they were enrolled in the nurse corps), psychologists, sociologists and trained social workers, vital statisticians, and perhaps public health education experts.

It is to be noted that the medical, nurse, dental, and sanitary corps exist already in the Army and Navy (the last

only as a reserve organization). In the Army, at least, the organization of sanitary engineers into a corps has long been overdue.[20] There would be many advantages in such a method of reorganization. All of the health experts would be placed on an equitable basis as regards salary, title, and conditions of work. The higher supervisory positions in the health organization would be thrown open to members of all the corps instead of being retained as a medical monopoly. It would almost completely remove from the classified civil service all the sanitarian professions, thus not breaking down the system of equivalence established by the Classification Act. At the same time it would greatly enlarge the range of equality for the nonmedical specialists engaged in health work. It would be quite feasible to enlarge the possibilities of transfer between the various corps in Health Service, Army, and Navy, thus in a real sense broadening the area for promotion.

Revision of Corps Regulations.—A certain amount of revision in the corps system, however, would be wise. The military titles might be abolished or retained for the medical corps with equivalent titles for the other corps. This would be especially desirable for the supervisory positions open to members of the various organized corps and no longer merely to the medical corps. The Foreign Service personnel system reveals the possibility of having a system of salary and promotion grades with separate titles for particular positions.[21]

There would have to be little change in examination and recruiting. Assuming normal entrance to each corps to be at the bottom, directly following the termination of academic and professional training, the methods now used by the Public Health Service for examinations might be adopted by the others. It has been wisely suggested that the Civil Service Commission be given representation on the Service examining boards as has been done in the case of the Foreign Service. This would not only establish more clearly

the objective and nonpartisan character of the tests, but would serve to promote helpful relations between the two most important examining agencies in the national government.[22] More attention might well be given to recruiting in the professional schools. But this is part of the broader subject of the organization of the whole sanitary profession and is beyond the scope of our present discussion.[23]

In all cases the mobile or general corps system should be retained. This implies appointment to the grade, but not to any specific position. Difficulties in effecting transfers are eliminated by this method and because of the requirements of field work it is almost a necessity for at least the medical, dental, nurse, and sanitary engineer corps. But the rules providing for periodic change of station should be considerably relaxed—especially for the scientific corps.

In general the system of closed promotion should prevail. But with five separate corps running through three services and possibly extended also to the Veterans' Bureau and the Indian Service, there should be such modification of regulations as will provide transfer from one of the services to the other without loss of grade. This would greatly widen the area for promotion and for selecting the supervisory officials, without destroying the particular value of closed promotion. It might be wise, in addition, to give the personnel promotion boards, or, in case of the chief supervisory positions, the Public Health Service Advisory Council (as suggested in the preceding chapter), authority to bring in exceptionally qualified persons from the outside when conditions warrant it.* This, however, if it came to

* Such outside appointments are especially desirable, at times, in cases where the federal bureau is engaging in coöperative work with the states and can profit greatly by placing an able and experienced state officer in a federal supervisory position. As has been suggested by A. W. Macmahon in his article in *The American Political Science Review* (Nov., 1926, p. 805, footnote), other federal governments, notably Germany, have much more flexible systems for interchange of national and state administrative personnel than is the case in the United States.

be employed with any regularity, would be a change of doubtful value.

Perhaps the most important revision should be in the method of making promotions. Advancement of salary on a seniority basis with the present system of allowances is a highly desirable feature which should be retained.[24] Promotions in grade, however, should be made on a merit rather than seniority basis all along the line, as is now done for the two highest grades. The lowest grade might be retained as a sort of apprenticeship period which would be ended by promotion after a qualifying examination. For the other promotions the competitive spirit should be evoked as far as possible. In order to protect this promotion system from leading to overcrowding of the upper ranks there would have to be established a fixed quota for each grade, as is done in the Foreign Service. Vacancies would then be filled, as now, by promoting from below, but on the basis of a service record or examination rather than seniority. Length of service would, of course, remain an important factor, but not the main factor. For the making of such promotions, as well as the assignment to successive posts, it would probably be wise to associate a Service personnel board with the Surgeon-General.

Promotions to all positions except the chief or director of the entire Health Service should be carried out by a personnel board or personnel boards in each corps as suggested in the preceding chapter. But Presidential appointment of the director would have to be retained. The President should, however, be guided in this very important matter by a suggestion from an expert source. Since the Service personnel boards might be embarrassed in making nominations to this post by the presence in its membership of eligible candidates for the honor it would seem wisest to give to the proposed Advisory Health Council by regulation the power of suggesting a name for the position at the end of each four-year period. Precedent for such action is seen

in the Foreign Service personnel system where its personnel board suggests to the Secretary of State, and he to the President, the names of Foreign Service officers fitted for posts made vacant in the rank of Minister.

With appointment to the chief positions limited to the five commissioned corps it would probably be wise to guard against stagnation by the provision of four-year detail with four-year renewal rather than permanent appointment. The Advisory Council might be given power to suggest the setting aside of this rule where an incumbent of unusual ability recommends himself for reappointment beyond the eight-year period. The very desirable sickness, disability, and retirement provisions now in use should be adopted for the newly-created corps. Other minor revisions might suggest themselves.

The Public Health Career.—In any reorganization it would be the part of wisdom to retain for each of the professional groups engaged in public health work the idea of providing a definite and secure life career in the national civil service with the possibility of rising to administrative positions of great power and prestige. Such machinery of itself would not be sufficient to attract from the professional schools young persons of the intellectual caliber, imagination, personality, and character which the immediate opportunities of national health leadership demand. But its creation and maintenance is a necessary first step.[25]

The more difficult task, perhaps, is that of permeating the general and professional educational system and customary modes of thought with an adequate knowledge of the public health profession and a full appreciation of the advantages of a career in that field. Recent studies reveal that here there is much still to be done.[26] In our essentially businesslike civilization a large majority of the young people, influenced by the major currents of opinion and valuation, are bound to be attracted to the careers of business and the professions where with high hazards of gain and

loss there is the possible goal of financial success carrying with it great prestige and abundant means of self-satisfaction. If our industrial life is based upon sound principles it is essential that a goodly number of the ablest young people should be so attracted.

But, especially in our colleges and universities, there are also to be found in this and every generation an appreciable number of young people, distinctly of the better sort as to intellect, personality, and character, who visualize success and self-satisfaction in other terms. Some are moved fundamentally by the sober delights of science and are eager to be placed in a position where they can help push back the frontiers of knowledge. Others, with a healthy social interest and desire for fame, see in the service of the State, especially in constructive and conspicuous service, an opportunity for gaining the success they covet. Still others, deeply influenced by vivid personal experiences with suffering, or by emotions and ideals kept alive through the institutions of religion, and perhaps even more by eloquent and influential secular personalities, desire more than anything to be put into a position where they may be helpful to their fellows in the mass. These, all of them, are the types which form the natural recruits for the public health profession. Probably the most important tasks in American health administration are to construct careers with such decent livelihoods, respectability, and security that persons of these high qualifications may honestly be directed into them and at the same time to permeate our educational system, especially at the strategic points, with an adequate knowledge and sympathetic understanding of such a career. It is a task for many hands.

Note on Abbreviations and References used in Notes and Bibliography

P. H. R.—Public Health Reports—issued weekly by the Public Health Service, Treasury Department, Washington, D. C.

Public Health Bulletins—issued by the Public Health Service.

P. H. S.—United States Public Health Service.

I. S. H. B.—Interdepartmental Social Hygiene Board.

Reports and Papers—Reports and Papers Presented at the Meetings of the American Public Health Association. Issued annually 1871 to 1912.

A. P. H. A.—American Public Health Association.

U. S. Stat. L.—United States Statutes at Large.

Unless otherwise indicated, all the publications of the national governmental agencies, legislative and administrative, are issued by the Government Printing Office, Washington, D. C.

NOTES

CHAPTER I

Evolution of American Public Health Organization

1. In 1863 the bacillus of anthrax had been discovered by Davaine and in 1873 Obermeier had seen the *spirochetes* of relapsing fever. The detailed analysis of the development of bacteriology would require a more careful description of beginnings than is given here. Probably the best available analysis, and the one upon which the author has relied most completely, is contained in the series of articles edited by Dr. Ravenel and published as the Jubilee Historical Volume of the American Public Health Association under the title *A Half Century of Public Health,* 1921.
2. Such boards were created as follows: Baltimore, 1793; Philadelphia, 1794; New York and Boston, 1799; Charleston, 1815; Pensacola, 1822; Mobile, 1825; Portland (Maine), 1833; New Orleans, 1841. For the best account of the origins of state and local health agencies see J. W. Kerr and A. A. Moll, "Organization, Powers, and Duties of Health Authorities," *Public Health Bulletin* No. 54, August, 1912 (issued by the Public Health Service), pp. 7-9.
3. In Providence, R. I., and St. Louis, 1832; Wilmington, Del., Columbus, Ga., 1833; Chicago, Rochester, N. Y., and Monroe, Mich., 1834; Madison, Wis., 1836; and Elmira, N. Y., 1840.
4. Massachusetts, 1797; Rhode Island, 1832; Maine, 1853; Connecticut, 1805; Michigan, 1846; Wisconsin, 1849; New York, 1850; Minnesota, 1866 (townships only); Illinois, 1865 (townships only).
5. A local medical function long antedating the modern public health movement, but which was exercised very widely, was the care of the sick poor. This task was most often given by the local public authorities to some resident physician working on a fee basis. If no such arrangement was made the sick poor were attended to by private charity.

   Another medical function exercised by the public authority at an early date was the regulation of the practice of medicine. The earliest examples of state or colonial medical

activity seem to have had this object. Thus the colonies or provinces of Virginia in 1639, Massachusetts in 1649, and New York and New Jersey in 1665 passed statutes regulating the practice of physicians.

6. For a description of the life and work of Lemuel Shattuck see John Ward Dean, "Lemuel Shattuck," *Memorial Biographies of the New England Historic Genealogical Society,* Vol. III (1856-1859), pp. 290-321. Shattuck's interest in vital statistics originated in an examination of birth and death records in connection with the writing of the history of the Town of Concord, a task assumed as an avocation.
7. See C.-E. A. Winslow, *The Evolution and Significance of the Modern Public Health Campaign,* Yale University Press, 1923, *passim.*
8. Twenty-seven states have boards with 5, 6, or 7 members; 3 have boards with 3 members, 3 with 8 members, 4 with 9, 3 with 10, 3 with 11, and 1 with 15. See "Directory of State and Insular Health Authorities, 1926," *P.H.R.,* Vol. 41 (Aug. 27, 1926), pp. 1824-1845. The facts regarding contemporary state health structure and function are to be found in the *Annual Directory* cited above, in Kerr and Moll's "Organization, Powers, and Duties of Health Authorities," *op cit.,* and C. V. Chapin's, *Report on State Public Health Work, Based on a Survey of State Boards of Health,* American Medical Association, 1913.
9. In 1926 the executive officer appears to be a member of the central health board in twenty-four states. In seven of these states he is the president or chairman; in fourteen he is the secretary. In six states where he is not listed as a member of the board he serves as its secretary.
10. In Nebraska and Idaho the health agency is a bureau in a single-headed department of public welfare. In New Mexico there is a board of public welfare with a bureau of public health under its control.
11. In Maryland, Vermont, Washington, and Minnesota, where comprehensive plans of general administrative reorganization have been carried through, the board has been retained in its old position, with power to appoint the health officer.
12. Dr. Stephen Smith, "Development of American Public Health Endeavor," *American Journal of Public Health,* Vol. V, p. 1116.
13. See "Report of the Committee on Municipal Health Department Practice of the American Public Health Association in co-

operation with the United States Public Health Service," *Public Health Bulletin* No. 136, July, 1923, 468 pp. This survey of the eighty-three cities with a population of over one hundred thousand has been supplemented by a later survey of all cities over seventy thousand carried on in 1924 by the Public Health Service, and a study of eighty-six cities with a population of from forty to seventy thousand carried on by the American Child Health Association in 1925. In Connecticut studies have been made of twenty-one towns with a population from ten to thirty thousand. There is, therefore, available a fairly complete picture of the current activities of American municipalities.

14. Louis I. Dublin, *County Health Organization,* 1915. 5 pp. (pamphlet). This is a reprint of a paper read before the A.M.A., June, 1914.
15. For latest description of the status of the movement for full-time county health officers, see L. Lumsden, "Coöperative Rural Health Work of the Public Health Service in the fiscal year 1926," *P.H.R.,* Oct. 22, 1926, esp. p. 2417.
16. The legal basis for state administrative control over local health agencies is dealt with at length in the forthcoming volume by S. C. Wallace of Columbia University, entitled *State Administrative Control over Cities.*

CHAPTER II

Federal Health Powers Under the Commerce Clause

1. Max Farrand, *The Framing of the Constitution of the United States,* New Haven, 1913, pp. 201-202.
2. Ernst Freund, *The Police Power,* Chicago, 1904, p. 3.
3. See E. S. Corwin, "Due Process of Law before the Civil War," *Harvard Law Review,* Vol. XXIV, p. 375.
4. McDermott *v.* Wisconsin, 1912, 228 U. S. 115, 128.
5. See Chapter XI for detailed description of quarantine powers of the Public Health Service under Acts of 1890 (26 U. S. Stat. L. 31) and 1893 (27 U. S. Stat. L. 449).
6. The Act of 1909 (35 U. S. Stat. L. 614) prohibited opium importation except for medicinal use; the statute of 1914 (38 U. S. Stat. L. 275) regulated importation still further. There had been a heavy federal tax on opium manufactured in the United States (26 U. S. Stat. L. 620) which was increased by the 1914 law.

7. R. E. Cushman, "The National Police Power under the Commerce Clause of the Constitution," *3 Minnesota Law Review* 454 (1919). This excellent article has been used extensively throughout the present chapter.
8. Hammer *v.* Dagenhart, 1918. 247 U. S. 251,279.
9. *Child Labor Bulletin,* Vol. VII (Feb., 1919), p. 258.
10. Savage *v.* Jones, 1912. 225 U. S. 501.
11. Armour *v.* North Dakota, 1916. 240 U. S. 510.
12. McDermott *v.* Wisconsin, 1912. 228 U. S. 115.

CHAPTER III

Federal Health Powers Under the Taxation and Other Clauses

1. For discussion of federal aid and the federal appropriation power see E. Corwin, "The Spending Power of Congress," *Harvard Law Review,* Vol. XXXVI (March, 1923), p. 554.
2. See *Ex Parte* Jackson, 1878. 96 U. S. 733.
3. Milwaukee Social Democratic Publishing Company *v.* Burleson (1921. 255 U. S. 407). There was a dissent in the case which asserted that the administrative order denied due process and the freedom of the press.
4. Senator Kenyon made such a proposal in 1918 after the Supreme Court decision denying the validity of the first Child Labor Act. Congress chose instead the unsuccessful legislative experiment of a tax on employers of child labor. See *Congressional Record,* Vol. 56, p. 8341.
5. E. S. Corwin, *National Supremacy,* 1913, p. 179. Later cases sustaining the Pacific Coast anti-alien land laws clearly recognize the existence of the treaty power as superior to state regulatory laws, although in no case has the law been found to run counter to the treaty. See Terrace *v.* Thompson (1923. 263 U. S. 197), Porterfield *v.* Webb (1923. 263 U. S. 225), Webb *v.* O'Brien (1923. 263 U. S. 313), Frick *v.* U. S. (1923. 263 U. S. 325).
6. The question of private rights in the insular possessions was dealt with at length in the so-called Insular Cases. See especially Downes *v.* Bidwell (182 U. S. 244), and DeLima *v.* Bidwell (182 U. S. 1). The cases were discussed by L. S. Rowe in *The United States and Porto Rico,* N. Y., 1904.

7. For other cases dealing with Indian constitutional status see esp. U. S. *v.* Nice (1915. 241 U. S. 398).
   U. S. *v.* Holliday (3 Wall. 407, 417).
   Hickman *v.* U. S. (1911. 224 U. S. 413).
   Tiger *v.* West Investment Co. (221 U. S. 286).
   U. S. *v.* Pelican (232 U. S. 442, 450).
   Winton *v.* Ames (255 U. S. 263).
   Brader *v.* James (246 U. S. 88).
   In the opinion in the *Tiger* case it was said that "the conferring of citizenship carried with it certain civil and political rights inhering in the privileges and immunities of citizenship," but the case decided that complete restriction of land ownership was not incompatible with such immunities.
8. Thayer, *Cases on Constitutional Law,* 1895, note, p. 364. See also "A People Without Law," *Atlantic Monthly,* Vol. 68, pp. 540, 676; and George F. Canfield, Esq., "Legal Status of the Indian," *15 American Law Review* 21 (1881).
9. Since this was first written there has occurred the overwhelming and unpredicted defeat of the proposed Child Labor Amendment at the hands of the state legislatures. Aside from the many bad arguments against this measure there were some good ones which dealt with the dangerous aspects of such a general relocation of governmental powers.
10. Thompson, *Federal Centralization,* p. 380.
11. Ernst Freund, *Standards of American Legislation,* p. 104.

CHAPTER IV

National Medical Care of the Merchant Seamen

1. *Annals of Congress,* April 10, 1798, pp. 1386-1394.
2. *First Annual Report of the Supervising Surgeon of the Marine Hospital Service of the United States,* 1872, p. 7.
3. W. S. E. Ruschenburger, *Remarks on the Condition of the Marine Hospital Fund of the United States,* 1848, p. 8.
4. *Ibid.,* pp. 6, 8.
5. *First Annual Report of the Supervising Surgeon of the Marine Hospital Service,* 1872, pp. 9, 10.
6. Ruschenburger, *op. cit.,* p. 7.
7. *First Annual Report of the Supervising Surgeon of the Marine Hospital Service,* 1872, pp. 10, 11.
8. *Ibid.*

9. *Ibid.*, p. 11.
10. *Congressional Globe,* 41 Cong., 2 Sess. (Feb. 21, 1870), p. 1451.
11. *Report of the Secretary of the Treasury on the State of the Finances,* 1855, 34 Cong., 1 Sess., Exec. Doc. No. 10, pp. 25, 26.
12. *Ibid.*
13. Ruschenburger, *op. cit.,* p. 7.
14. Ruschenburger, *op. cit.,* p. 9.
15. *Annual Report of the Supervising Surgeon-General of the Marine Hospital Service,* 1882, p. 40.
16. For debates see *Congressional Globe,* 41 Cong., 2 Sess. (1869-1870), pp. 1449-1453.
17. Fielding H. Garrison, *John Shaw Billings, A Memoir,* p. 154.
18. Act of June 26, 1884 (23 U. S. Stat. L. 57). For debates on this measure see *Congressional Record,* 48 Cong., 1 Sess. (April 26, 1884), pp. 3427-3452.
19. W. Wyman, "Present Organization and Work for the Protection of Health in the United States," Reprint from *P.H.R.,* No. 49, Washington, 1912, p. 9.

CHAPTER V

Medical Care and Preventive Medicine in the Army and Navy

1. *Medical Department of the U. S. Army During the Period of the Revolution 1776-1786,* ed. by Col. Wm. O. Owen, U. S. A., *passim.*
2. Capt. Louis C. Duncan, Medical Corps, U. S. A., *The Medical Department of the U. S. Army in the Civil War,* p. 25.
3. The work and interests of the Washington group are described in *J. S. Billings, A Memoir.* See, esp. pp. 138 ff.
4. *Sternberg Biography,* pp. 242, 264.
5. *Annual Report of the Surgeon-General, U. S. Army,* 1888, p. 103.
6. *Ibid.,* 1916, pp. 17, 18.
7. *J. S. Billings, A Memoir,* p. 153.
8. *Sternberg Biography,* p. 314.
9. Senate Document No. 10, 59 Cong., 2 Sess., gives an account of the experiment. See also Howard Kelly, *Walter Reed and Yellow Fever;* Senate Document 520, 61 Cong., 2 Sess.; *Yellow Fever Commission, Papers, Memorials, Letters, etc.;*

and Mrs. Marie C. Gorgas, and Burton J. Hendrick, *Wm. Crawford Gorgas his Life and Work,* New York, 1924, 359 pp.

10. *Report of the Surgeon-General, U. S. Army,* 1919, p. 2925.
11. *Ibid.,* 1921, p. 99.
12. *Ibid.,* pp. 222-224.
13. *Ibid.,* 1919, p. 2726-2727.
14. *Ibid.,* p. 2737.
15. *Ibid.,* p. 2768.
16. *Annual Report of the Surgeon-General of the Navy,* 1917, p. 754.
17. *Ibid.,* 1919, pp. 358 ff.

CHAPTER VI

Medical Care and Preventive Medicine in the Army and Navy (Cont.)

1. See *Report of the Surgeon-General U. S. Army,* 1918, pp. 651-652, which contains a review of the Army venereal disease policy.
2. *Ibid.*
3. *Proposed Legislation affecting the Medical Corps,* Hearings, 1918.
4. *Report of the Surgeon-General, U. S. Army,* 1920, p. 295.
5. *Ibid.,* 1920, p. 297; 1921, p. 128.
6. *Ibid.,* 1919, p. 37.

CHAPTER VII

Medical Care of the World War Veterans

1. *Report of the Surgeon-General, U. S. Army,* 1919, *passim.*
2. The Navy general or station hospitals were located as follows: Annapolis, Md.; Chelsea, Mass.; Great Lakes, Ill.; Las Animas, Colo.; Mare Island, Cal.; Narragansett Bay, R. I.; New York, N. Y.; Norfolk, Va.; Philadelphia, Pa.; Port Royal, S. C.; Portsmouth, N. H.; Puget Sound, Wash.; Washington, D. C.

   In addition there were the following hospitals, located outside the continental area; Canacao, P. I.; Guam; Olongapo, P. I.; Yokohama, Japan.

   There was also a Navy special hospital for tuberculosis patients at Fort Lyon, Colo.. the sanatorium at Hot Springs,

Arizona (shared with the Army), and St. Elizabeth's Hospital for insane patients.

New hospitals were added during the war at the following places: New London, Conn.; Cape May, N. J.; Charleston, S. C.; Gulfport, Miss.; Key West, Fla.; Pensacola, Fla.; Hampton Roads, Va.; San Diego, Cal.; Pearl Harbor, Hawaii.

A hospital at St. Thomas, Virgin Isles, was added near the end of the war. See *Report Surgeon-General, U. S. Navy,* 1918, in *Annual Reports Secretary of the Navy,* pp. 1370, 1372.

3. *Congressional Record,* 67 Cong., 2 Sess., p. 14238.
4. See *House Document,* No. 1294, 65 Cong., 2 Sess. This contains the memoranda of the War Risk Bureau, Public Health Service, and Treasury Department leading up to the Secretary's letter to Congress recommending hospital construction. See, esp., pp. 2, 3.
5. *Ibid.,* p. 3.
6. *Ibid.,* pp. 4, 5. The sites suggested in the Surgeon-General's memorandum to the Secretary of the Treasury for additional hospitals and sanatoria facilities were: Boston; Chicago; Cleveland; Detroit; Evansville, Ind.; Louisville, Ky.; Norfolk, Va.; New Orleans; San Francisco; Seattle; St. Louis; Wilmington, N. C.; Ft. Stanton, N. M.; Berkshire Hills; and an unnamed place in North Carolina. It will be noted that Dawson Springs was not included in these original suggestions.
7. *Ibid.*
8. *Ibid.,* p. 6.
9. *Hearings* in House on H. R. 12917 before Committee on Public Buildings and Grounds.
10. *Ibid.,* pp. 8, 13, 14.
11. See *Hearings* on H. R. 12917 before the House Committee on Buildings and Grounds, pp. 1-19. It is evident from these hearings that there were two special reasons which attracted the experts to this site. First was the presence of medicinal waters which might eventually be valuable for marine hospital treatment of other diseases. Second was the presence of some very accessible coal deposits which, it was thought, might prove to be a means of reducing fuel costs. For extracts from favorable testimony see also *House Report* 799, 65 Cong., 3 Sess., to accompany H. R. 12917, Sept. 20, 1918.

12. See *Congressional Record* (Oct. 3, 1918), 65 Cong., 2 Sess., pp. 11098-11099, 11149.
13. *Hearings* on H. R. 12917, pp. 1-19.
14. See *Congressional Record* for debate, 65 Cong., 3 Sess. (December 3-5, 1918), pp. 44-63, esp. p. 58, 106-117, 146-167.
15. See House Committee on Public Buildings and Grounds, *Hearing* on H. R. 13026, Oct. 8, 1918 (Serial No. 14), 25 pp.
16. *Ibid.*, Hearings, Dec. 3, 6, 1918, pp. 14, 17, 21 (Serial No. 15), for testimony of Dr. Stimpson.
17. See House *Hearings* on H. R. 13026, Dec. 9, 1918 (Serial No. 16), pp. 4-23 for testimony of Col. Winford H. Smith, head of the Hospital Division of the Army.
18. See *House Report* 879 on H. R. 13026, Dec. 21, 1918. The Minority report was Part Two of this report. It was presented Jan. 22, 1918.
19. See *Congressional Record* 65 Cong., 3 Sess. (Jan. 25, 1919), pp. 2049-2060.
20. See Senate *Hearings* on H. R. 13026, pp. 18, 67, 89-90, 301, 1268. See, esp. p. 18 (Dr. Stimpson), p. 67 (Dr. Banks), pp. 301 and 1238 (Army officers).
21. The bill as finally adopted contained the following plan:

$1,500,000 Dawson Springs—new.
3,000,000 Speedway—new, partially built for Army war purposes.
900,000 Norfolk—new.
550,000 Washington, D. C.—new.
1,500,000 Undesignated—new or reconstruction (Conference Committee added this).
190,000 Stapleton, L. I.—reconstruction of marine hospital.
300,000 For leasing hospitals (Conference added this).
150,000 Purchase of hospital at Corpus Christi (an Army leased hospital, General No. 15).
900,000 South Dakota Soldiers' Home transferred for five years (added in Conference).
750,000 Remodeling the following cantonments and other structures:
Camp Joseph Johnston, Fla.
Camp Beauregard, La.
Camp Fremont, Cal.
Camp Cody, N. M. (Changed in Conference from Hancock, Ga.).

Camp Logan, Texas (Changed in Conference from McArthur, Texas).
Perryville, Md., nitrate plant.
210,000 Architect and construction costs.
Total for construction and reconstruction, $9,050,000.

See *Senate Report* 729 (Feb. 13, 1919), 65 Cong., 3 Sess. Also *Conference Report* 1161 to House, March 2, 1919.

22. The following quotation from a statement of Surgeon-General Blue of the Public Health Service a year later reveals the official attitude regarding designation: "It will be noted that all through the history of this legislation it was not the intention of the Service specifically to locate hospitals until after obtaining the appropriations and until after careful survey, as experience might dictate." From *House Document* 481, 66 Cong., 2 Sess., p. 4.
23. *House Document* 481.
24. *Ibid.*, p. 5.
25. The Secretary's letter included the following statement: "It is impossible for me to state whether or not the estimates as submitted by the Surgeon-General of the Public Health Service are even approximately correct."
26. The Senate Committee on Public Health and National Quarantine did take some action on the matter. Senator France, as its chairman, introduced a bill on May 25, 1920, based upon the revised estimates of the Treasury submitted in a letter of James H. Moyle, Asst. Secy. in charge of the Bureau of the Public Health Service. It provided for three neuro-psychopathic and two tuberculosis hospitals at a cost of ten million dollars. This was reported out but not acted upon. See *Senate Report* 651 (June 2, 1920), 66 Cong., 2 Sess.
27. See *Congressional Record*, April 27, 1921, pp. 696-702, for the original speech. For speech a year later see the *Record* for April 14, 1922, pp. 6015-6016.
28. See *Hearings* on Sweet bill before House Committee on Interstate and Foreign Commerce, pp. 140-144 (for Colonel Jones's testimony).
29. For 1918 and 1919 estimates see *House Document* 481 *passim*. For actual history of hospital needs see *Second Annual Report of Director of Veterans' Bureau* (1922-1923), p. 14, and *Third Annual Report* (1923-1924), pp. 12, 20. The liberalization law of June, 1924, had the effect of increasing the number to be hospitalized and the new peak load came

near to the one established before its passage. This is interesting in comparison with an ultimate load of 26,000 during 1926 prophesied in *House Document* 481.

CHAPTER VIII

Medical Care of the World War Veterans (Cont.)

1. See H. R. 13627 for purchases of Mount Alto Hospital site. Debated in House on May 20, 1920, debated in Senate June 4, 1920, became law June 5, 1920.
2. See speeches of Senators McCumber and Smoot, *Congressional Record,* 66 Cong., 2 Sess., p. 8530, and several speeches in House during this period.
3. Construction was delayed and charges of collusion and fraud were brought in the House. It was later admitted that the location was not so good as many of the others. It would probably never have been selected by the experts after a general survey of regional possibilities.
4. See *Congressional Record,* 66 Cong., 2 Sess. (May 20, 1920), p. 7443.
5. *Investigation of U. S. Veterans' Bureau, 3rd Preliminary Report,* June 6, 1924, p. 5, 68 Cong., 1 Sess. (Senate Report 103, Part 3).
6. See *Hospitals for Bureau of War Risk Insurance,* Report to accompany H. R. 14315, June 3, 1920, 3 p. (House Report 1098, 66 Cong., 2 Sess.). The Senate Report on S. 3745 was identical with this.
7. *Ibid.,* Report to accompany H. R. 15894, Jan. 27, 1921, 3 p. (House Report 1250, 66 Cong., 3 Sess.). This bill included a provision for extending facilities to veterans with mental or pulmonary diseases of previous wars other than Civil.
8. See *Congressional Record,* 66 Cong., 3 Sess. (Feb. 7, 1921), pp. 2730-2736. The House Committee on Public Buildings and Grounds had changed party majorities at the first session of the 66th Congress (June, 1919), coming under the chairmanship of Congressman Langley of Kentucky. Senator Walsh of the Senate Investigating Committee in the 1923 report suggests that delay in construction was due to partisan reasons. Although partisan accusations flowed freely during these years, it does not seem clear that both parties were not equally involved in the Congressional policy.

9. See *Congressional Record,* 66 Cong., 3 Sess., pp. 2731-2735. Commander Galbraith of the American Legion submitted to Congress much concrete statistical evidence as to the inadequacy of hospital facilities. See *Congressional Record* for March 3, 1924, pp. 4372-4373.
10. For Senate report see *Additional Hospital Facilities for Patients of the War Risk Insurance Bureau, etc.,* Report to accompany H.R. 15894, March 2, 1921 (66 Cong., 3 Sess.), 2 p. By an amendment to the appropriation bill adopted later, the restriction regarding six and one-tenth million dollars for remodeling was removed and the Secretary of the Treasury given complete discretion in the use of the total amount for establishing additional hospital facilities.
11. See *House Report* 1104, 66 Cong., 2 Sess.
12. See *Hearings* on H. R. 3, p. 47. Colonel Galbraith in testimony before the Committee described the American Legion action.
13. See *Hearings* on H. R. 14961 (the Rogers bill), *passim* (66 Cong., 3 Sess.).
14. *Ibid.*
15. The Dawes Commission consisted of the following members: Charles G. Dawes, chmn., John L. Lewis, Henry S. Berry, Mrs. Henry R. Rea, Franklin D'Olier, Miss Mabel Boardman, F. W. Galbraith, Jr., Theodore Roosevelt, T. V. O'Connor, Milton J. Foreman, Thomas W. Miller. The committee of consultants included Dr. William Charles White, Dr. Frank Billings, Dr. Pearce Bailey, and Dr. John G. Bowman. The hearings and report of the commission are included in published hearings on H.R. 5511.
16. There had been several previous bills introduced with the object of transferring agencies and consolidating the veteran activities. Congressman Rogers, April 1, 1920 (66 Cong. 2 Sess.), presented a bill (H.R. 13407) to transfer to the War Risk Bureau the veteran activities of the Federal Board and the Public Health Service, but there was no action upon it. A later bill by him (H.R. 14677, and H.R. 14961) with the same purpose, and bills (S. 4613 and H.R. 16155), by other authors with the same purpose, were not reported out of committee. There were also several other bills—one (H.R. 1136) by Congressman Fuller, one (H. R. 2022) by Congressman Fordney, transferring the War Risk Bureau to the Pensions Bureau, and various other rather irresponsible proposals which came to naught.

17. Congressman Sweet, the author of the bill, said in discussing his measure that "it was the outgrowth of concrete recommendations made by the legislative committee of the American Legion and representatives of other soldier organizations." See *Congressional Record,* Jan. 21, 1922, p. 1754.
18. H.R. 10864, the second Langley bill, was introduced in the House March 11, 1922, referred to the Committee on Buildings and Grounds, and reported out by its chairman March 14 (House Report 797). It was debated in the House March 30 (see pp. 5227-5246) and 31 (5292-5317, 5325-5335, 5403, 5712, 5724), passed April 3, referred to the corresponding committee in the Senate, reported out April 7, passed the Senate with little debate on April 14, and became a law April 19, 1922.
19. See *Hearings* on H. R. 8791, Feb. 8, 1922 (67 Cong. 1 Sess.), 15 pp.
20. The Committee in June, 1922, consisted of Dr. C. E. Sawyer as chairman and chief coördinator, Surgeon-General Ireland of the Army Medical Dept., Surgeon-General Stitt of the Navy Medical Bureau, Gen. Geo. H. Wood of the National Home for Disabled Volunteer Soldiers, Surgeon-General H. Cumming of the Public Health Service, Dr. Wm. A. White of St. Elizabeth's Hospital, Chas. H. Burke, Commissioner of Indian Affairs, Colonel Forbes of the U. S. Veterans' Bureau.
21. See *Congressional Record,* March 30, 1922, p. 5230; also see p. 5234.
22. See *Congressional Record* (67 Cong. 2 Sess.), p. 119, also pp. 2143, 2152, 1928, 1937.
23. *Ibid.,* pp. 4492-4494.
24. *Ibid.,* pp. 1125-1128.
25. *Ibid.,* for July 26, 1922, pp. 10677, 10682. Contains letters of criticism and Dr. Sawyer's reply.
26. *Ibid.*
27. See, for instance, *Congressional Record,* Feb. 26, 1923, p. 4725.
28. See *Hearings on Investigation of Veterans' Bureau,* Vol. 2, pp. 1096-1098.
29. See *Congressional Record,* March 2, 1923, pp. 5240-5241.
30. *Second Preliminary Report, Investigation of U. S. Veterans' Bureau,* Senate Report 103, part 2 (68 Cong. 1 Sess.), p. 5.
31. *Ibid.,* p. 2.
32. *Ibid.,* Part 3, pp. 4, 5.
33. *Ibid.,* Part 2, p. 18.

34. *Ibid.*, p. 21.
35. *Ibid.*, p. 21.
36. *Ibid.*, pp. 22, 40, 41.
37. *Ibid.*, p. 23 and *Hearings,* Vol. 2, pp. 1717-1719, and p. 124.
38. See *Hearings,* p. 1047.
39. See *Report of Veterans' Bureau,* 1924, p. 23, p. 12; *Report,* 1925, p. 27.
40. By a measure adopted March 3, 1926 (Public No. 36. 69 Cong. 1 Sess.), another eight million was appropriated for new veterans' hospitals.
41. *Report of Veterans' Bureau,* 1924, p. 10.
42. Under the 1924 law the peak of 30,753 was reached, February, 1925. It was estimated that about 17 per cent of these cases were admitted under the new provisions. See *Hearings* on H. R. 4474, Jan. 6, 1926 (69 Cong. 1 Sess.).
43. *Report,* 1923, pp. 8, 9; *Report,* 1926, p. 3.

CHAPTER IX

National Medical Care of the Indians

1. The history of the Indian Service here given is gleaned from several places. The main sources relied upon are the following: *Hearings* before the House Committee on Indian Affairs, 1919, Vol. I, pp. 8-36; and *The Indian Problem,* House Doc. 149, 68 Cong., 1 Sess., 1924, containing memoranda for the use of the Committee of One Hundred, especially a memorandum prepared by Secretary McDowell of the Board of Indian Commissioners (pp. 22-25).
2. Edgar B. Merritt, "The American Indian and Government Indian Administration," *Bulletin No. 12,* Office of Indian Affairs, 1926, 17 pp.
3. The total area of the 210 reservations is 120,000 square miles, or about ½ square mile for each Indian.
4. See Office of Indian Affairs: "The Indian Health Service," *Bulletin No. 11,* 1923.
5. 1919 *Hearings,* Vol. I, p. 453.
6. See McDowell Memorandum, *op. cit.,* also 1925 and 1926 reports of Commissioner of Indian Affairs; 1926 *Report of Board of Indian Commissioners;* and *Bulletin No. 11* of Office of Indian Affairs. The 1919 *Hearings,* pp. 275-278. contain a tabular statement in regard to hospitals. Of the 87 hospitals in use in 1919, 18 were erected and maintained

out of tribal funds, one other was built out of tribal funds and maintained out of Indian Service appropriations, and two others were built from appropriations and maintained out of tribal funds. See Dr. Newberne's description, 1919 *Hearings,* p. 444.

7. See general descriptions as noted above—No. 1.
8. *Report of the Commissioner of Indian Affairs,* 1921, p. 11.
9. 1919 *Hearings,* p. 17; *Report of the Commissioner,* 1926, pp. 1, 2.
10. For comparative analysis of the status and tenure of the Commissioner of Indian Affairs see Arthur W. Macmahon, "Selection and Tenure of Bureau Chiefs, . . ." *American Political Science Review,* Nov., 1926, p. 797. The 1926 *Report of the Board of Indian Commissioners,* p. 4, urged that the Commissioner be given a civil service status.
11. The Report of the Board of Indian Commissioners, 1924 (p. 7), announced that this Division was being set up. The Commissioner's annual report of the same year (p. 3) made no mention of it but did announce the creation of a division of field welfare. Personal correspondence under date of March 24, 1925, however, indicates that the Health Division has been established and that field welfare has been included in the new Division, probably as a section. The 1919 *Hearings,* pp. 16-22, contain a description of the Washington Office organization, with diagram of structure.
12. *Contagious and Infectious Diseases Among the Indians.* Senate Document 1038, 62 Cong., 3 Sess., 1913.
13. A more intensive and detailed investigation of disease in a single tribe—the Winnebago Indians of Nebraska—has been made. Its conclusions substantiate the Public Health Service findings in practically all respects. See Margaret W. Koenig, M.D., *Tuberculosis Among the Winnebago Indians,* Lincoln, Neb., 1921, 48 pp. The recent personal surveys of the Southwestern Indians by Dr. Frederick L. Hoffman also substantiate the early findings. See, especially, his "Medical Problems of the Indian Population," published as *Bulletin No.* 6 of the Eastern Association on Indian Affairs, *Inc.,* 1925.
14. *Report of the Commissioner,* 1926, p. 3.
15. *Contagious and Infectious Diseases Among the Indians,* pp. 70, 71.
16. The annual appropriations are as follows: The year indicated is the end of the fiscal year in June.

1911	$ 40,000	1919	$375,000
1912	60,000	1920	350,000
1913	90,000	1921	355,000
1914	200,000	1922	375,000
1915	300,000	1923	370,000
1916	300,000	1924	375,000
1917	350,000	1925	500,000
1918	350,000	1926	700,000

17. The increase of Indian hospitals is indicated below:

1882	1	1917	81
1888	4	1918	87
1900	5	1919	87
1911	50	1920	87
1912	53	1921	85
1913	48	1922	78
1914	51	1923	78
1915	74	1924	79
1916	81	1925	82

18. *New York Times,* March 18, 1925, address of Dr. Emerson at a luncheon of the American Indian Defense Association.
19. Henry C. Fleming, M.D., *Medical Observations on the Zuñi Indians,* 1924, p. 47.
20. See 1919 *Hearings,* pp. 482-489, for a list of all positions and salaries in the Indian field service; for testimony regarding low salaries see pp. 283, 436, 447.
21. 1919 *Hearings,* p. 446.
22. *Contagious and Infectious Diseases Among the Indians,* p. 71.
23. Recent legislation affecting the national civil service is improving the personnel situation in the Indian Service—*i.e.,* the Retirement Act and the Classification Act.
24. J. A. Murphy, "Health Problems of the Indians," *Annals of the American Academy,* Vol. XXXVII (March, 1911), p. 108.
25. *Contagious and Infectious Diseases Among the Indians,* p. 83.
26. See *Report of the Board of Indian Commissioners,* 1919, pp. 220, 221.
27. 1919 *Hearings,* p. 272.
28. *Ibid.,* p. 288.
29. *Contagious and Infectious Diseases Among the Indians,* p. 83.
30. *Ibid.,* p. 85.
31. *Report of the Board of Indian Commissioners,* 1919, pp. 220-

221; 1918, p. 338. This has been discontinued in subsequent reports.

32. 1919 *Hearings,* p. 443.
33. 1919 *Hearings,* p. 288.
34. *Ibid.,* p. 289.
35. Charles Armstrong, "Typhus Fever on the San Juan Reservation, 1920 and 1921," *P. H. R.,* Vol. 37, No. 12 (March 24, 1922), pp. 685-693.
36. 1919 *Hearings,* p. 1121.
37. *Ibid.,* pp. 395-403, 426.
38. 1919 *Hearings,* pp. 440-442.
39. *Circular No. 44,* Treasury Department, Bureau of the Budget, Washington. Also personal correspondence with the Commissioner of Indian Affairs, 1922.

CHAPTER X

National Medical Care of Territorials and Other Wards

1. *Report of the Governor of Hawaii to the Secretary of the Interior,* 1921, p. 83; 1920, p. 77. See also *Hearings,* before the House Committee on Territories, Feb. 3-5, 7, 10, 1920, p. 9, especially the testimony of Hon. C. J. McArthy, Governor of Hawaii.
2. See Report of the Insular Board of Health, in *Report of the Governor of Porto Rico* (War Department, Annual Reports), 1919, Vol. III, p. 128.
3. *Annual Report of the Surgeon of the Army,* 1913, p. 213.
4. *Report of the Governor of Porto Rico,* 1920, p. 25.
5. *Annual Report of the Surgeon-General of the Public Health Service,* 1919, p. 47.
6. *Annual Report of the Governor of Porto Rico,* 1925, p. 49.
7. *Report of the Governor-General of the Philippine Islands,* 1918, p. 113; *Ibid.,* 1924, p. 7.
8. Report of the Philippine Commission (called Wood-Forbes Commission), 1921, published in *Current History Magazine,* Vol. XV (January, 1922), p. 693.
9. *Ibid.,* p. 688.
10. See Dispatch from Manila dated Nov. 21, 1921, published in *New York Times,* Dec. 27, 1921. See also *Report of the Governor-General of the Philippine Islands,* 1923, p. 75; *Ibid.,* 1924, p. 8.
11. *Report of the Governor of Alaska,* 1918, p. 512.

12. *Ibid.*, p. 514.
13. *Ibid.*, 1918, 1919, 1920, 1921.
14. *Ibid.*, 1920, p. 73; 1921, p. 63; 1925, p. 65.
15. *Ibid.*, 1918, p. 513.
16. *Ibid.*, pp. 514-516.
17. *The Island of Guam, passim.* A pamphlet issued by the Navy Department.
18. *Report of the Surgeon-General of the Navy* (in 1921 Report of the Secretary of the Navy), p. 75.
19. *American Samoa, A General Report by the Governor,* 1916, Washington, *passim.*
20. *Report of the Surgeon-General of the Navy* (in Annual Reports of the Navy Department), 1920, p. 923.
21. *Ibid.*
22. Statement of Judge Towner before House Committee on Naval Affairs, March 9, 1920, reprinted in *Annual Reports of the Navy Department,* 1920. Appendix E, pp. 345-347.
23. See annual reports of the Health Department of the Panama Canal Zone (issued for the calendar year), Panama Canal Office, Washington, D. C.
24. Address of Jay Morrow (pamphlet), *The Maintenance and Operation of the Panama Canal,* 1923, p. 14.
25. *Report of the Surgeon-General of the United States Marine Hospital and Public Health Service,* 1902, p. 316.
26. *Ibid.* for 1904.
27. *Ibid.* for 1909, p. 151.
28. *Report of the Surgeon-General of the Navy* (in Annual Reports of the Navy Department for 1920), p. 340. This contains also the report of Rear Admiral Thomas Snowden, Governor of Santo Domingo, pp. 341 ff.
29. *Ibid.*, p. 342, p. 915.
30. *Ibid.*, p. 342.
31. Samuel Guy Inman, Exec. Secretary Commission on Coöperation in Latin America, *New York Times Current History Magazine,* December, 1920, p. 505. Also, see *Inquiry into Occupation and Administration of Haiti and the Dominican Republic,* Senate Report 794, 67 Cong., 2 Sess. (37 pp.), p. 25.
32. *Report of the Congressional Joint Commission on Reclassification of Salaries,* 1919, Part I, pp. 101, 102.
33. Lee K. Frankel, Ph.D., "Humanizing the Post Office Department," *The Survey,* Dec. 17, 1921, p. 434.
34. *Ibid.*

35. See *Annual Report of the Postmaster-General,* 1921, p. 72; 1922, p. 49; 1923, p. 42; 1924, p. 32; 1925, p. 42; 1926, p. 37.
36. *Annual Report of the Surgeon-General of the Public Health Service,* 1921, p. 158.

CHAPTER XI

National Quarantine Against Epidemic Diseases

1. Used in his article *Quarantine and Commerce,* a pamphlet reprint of an address delivered before the Commercial Club of Cincinnati, Ohio, Oct. 15, 1898.
2. Quoted from Wm. H. Allen, "The Rise of the National Board of Health," *Annals,* Vol. XV (1900), p. 66.
3. See *Annals of Congress,* 1796, pp. 1347-1360, for debate. The passage quoted is noted also by Allen *supra,* p. 55.
4. Message of December 8, 1798, quoted in Edgar H. Farrar, *State and Federal Quarantine Powers,* address before the Quarantine Convention at Mobile, Feb. 9, 1898. Reprinted as pamphlet.
5. See *Congressional Globe,* 39 Cong., 1 Sess., p. 2121.
6. *Ibid.,* p. 2521.
7. *Ibid.,* p. 2484. The debate on the measure is to be found in the *Globe* as follows: May 8, pp. 2444-2446; May 9, pp. 2483-2486; May 10, pp. 2520-2522; May 11, pp. 2848-2850; May 15, pp. 2581-2589.
8. See *Annual Report of the Supervising Surgeon of the Marine Hospital Service of the U.S.,* 1873, p. 99; 1875, p. 16; 1876-77, p. 14.
9. See *Annual Report,* 1874, pp. 203-245.
10. For discussion of this measure (Bromberg bill) see *Congressional Record,* 43 Cong., 1 Sess. (June 4, 1874), pp. 4562-4564.
11. For text and discussion see *Congressional Record,* 45 Cong., 2 Sess. (March 27, 1878), pp. 2074-2081.
12. See *National Board of Health Bulletin,* June 28, 1879, pp. 1-3; also *Congressional Record,* June 2, 1879, pp. 1634-1660, 5301-5352.
13. J. S. Billings, "The National Board of Health and National Quarantine," *Transactions of the American Medical Association,* Vol. XXXI (1880), pp. 448-449. *The National Board of Health Bulletin* and the annual reports of the

National Board of Health give an account of quarantine activities. See also Chapter XVI.

14. *Annual Report of the Surgeon-General,* 1909, p. 228.
15. See *Annual Report of the Surgeon-General,* 1883, p. 56.
16. See *Annual Report of the Surgeon-General,* 1893, p. 265. The New York Board of Trade and Transportation issued to governors, mayors, public health officials, sanitarians, and other prominent persons a circular during the winter asking for opinions regarding the respective merits of uniform national quarantine and state or local quarantines. There were 67 replies. 44 recommended uniform national quarantine; 5 opposed it; 5 were doubtful; 13 expressed no opinion. The publication of these results caused a great deal of public interest.
17. Quoted from H. L. West, *Federal Power,* 1918, p. 76. An example of the states' rights arguments is the following: "On the plea of necessity the House of Representatives is asked once more to organize a raid upon State authority, to invade the sacred domain of personal liberty, to wrest from the local authorities of the States a power which up to this time has been exclusively theirs, and, in order effectually to secure these ends, to delegate to a single administrative officer its high legislative functions." Also from H. L. West, pp. 75-76.
18. See *Annual Report of the Surgeon-General,* 1893, p. 270.
19. The maritime quarantine at the mouth of the Mississippi gave the Service more trouble than any other. Louisiana and Mississippi did much to thwart and hinder federal operations and little to erect a satisfactory substitute. See *Annual Report of the Surgeon-General,* 1897, pp. 510-512, where there is described the attempt of the State of Mississippi to erect a quarantine at Cat Island, to declare the federal quarantine station an infected place and to require redisinfection of all vessels which visited it. The state even tried to cut off supplies to the federal station at Ship Island. In the 1896 *Report,* p. 952, there is recounted a visit of inspection to the state quarantine station at Cat Island as follows: "I could not find any human being at the supposed station, although I stood by the tents and called aloud and searched the landscape with a glass from the top of Great Sand Hill. . . . It would appear that the State board of health is seeking the removal of the federal station merely in the hope of squatting in our establishment." The Service

officer further relates the difficulties of a ship captain who tried in vain to find the Cat Island quarantine. Louisiana, Florida, Texas, and San Francisco health authorities also were zealous at times in opposition to federal quarantine. The San Francisco quarantine, after much trouble, was taken over with the consent of the local board of health by the federal government in 1896. See *Report,* p. 958. The story of the 1897 epidemic is told in the *Annual Report,* pp. 581 ff.

20. Walter Wyman, *Quarantine and Commerce, op. cit.,* p. 13.

21. For account of competing legislation see *Report of the Surgeon-General,* 1898, pp. 760 ff; *Report,* 1899, p. 833.

22. The situation is stated in a telegram sent to Washington by Dr. Kinyuon in the heat of the struggle: "It appears that the 'commercial interests' of San Francisco are more dear to the inhabitants than the preservation of human life. . . . The people seem to be perfectly indifferent whether or not bubonic plague exists in San Francisco, so long as they can sell their products and make large percentages on their investments. We have noted the attitude of the 'commercial interests' in Southern States where yellow fever has appeared, but never has it approached anything like what is to be found here. It would be difficult to say what would be necessary to awaken these people to their responsibility as citizens of the United States"—from *Annual Report,* 1901, p. 449.

The resolutions adopted by the plague conference of state health officers were as follows: "The present danger to California and to the United States lies primarily in the persistence, during nearly three years, of a definite nidus of plague infection in that part of San Francisco known as Chinatown; but the gravity of this circumstance is greatly increased by the gross neglect of official duty by the State Board of Health of California, by the failure of the city government of San Francisco to support its city board of health and the obstructive influence of the recent governor of California, and by the obstacles opposed to the operations of the United States Public Health Service. The conference expresses its conviction that the U.S. Public Health Service has deserved well of the State of California and the country and that it would go far toward the restoration of popular confidence if the U.S. Public Health Service officials were admitted to the same relations with the State

board of health as have been steadily maintained with the city board of health at San Francisco."—From *Annual Report of the Surgeon-General,* 1903, 234 ff.

23. On July 12, 1905, it was reported by physicians in New Orleans to the state board of health that positive cases of yellow fever existed. On July 18 the city health officer would not allow the Service officer to accompany him in investigating suspicious cases. On July 22 the Service and public were informed by the local authorities that yellow fever existed. *Report,* 1906, p. 143. For Chattanooga conference see Maxey, *op. cit.,* p. 634.
24. Annual Message of President Roosevelt, Dec. 6, 1905.
25. The Virginia and Mobile, Alabama, quarantine stations were transferred in 1907; South and North Carolina in 1908; Louisiana and Mississippi, including New Orleans and Pascagoula stations, 1909; Providence, Rhode Island and small stations in California, 1912. The small stations in Texas were given up by the state in 1919. Difficulties in transfer of title, however, prevented their actual transfer until 1926. A small but vexatious inspection station for Philadelphia maintained at Marcus Hook was turned over in 1919.
26. Quoted in Hoffman, *A Plan for a National Health Service,* 1919 (pamphlet).
27. Brock C. Hampton, "International Health Organization," *P.H.R.,* Aug. 21, 1925, p. 1724.
28. Class A ports must meet the following sanitary requirements in addition to being free from communicable, epidemic diseases:
    (a) The presence of a qualified and adequate health staff.
    (b) Adequate means of fumigation.
    (c) Adequate personnel and material for the capture or destruction of rodents.
    (d) An adequate bacteriological and pathological laboratory.
    (e) A safe water supply.
    (f) Adequate means for the collection of mortality and morbidity data.
    (g) Adequate facilities for the isolation of suspects and the treatment of infectious diseases.
29. L. S. Woolf, *International Government,* pp. 221-242, for account of European quarantine conventions; also Brock Hampton, *op. cit.*
30. Hugh S. Cumming, "The International Sanitary Conference,"

American Journal of Public Health, Vol. XVI (Oct., 1926), p. 977.

31. *Ibid.,* p. 976.
32. *Ibid.,* p. 966; Hampton, *op. cit.,* pp. 1733-1737.
33. Hugh S. Cumming, *op. cit,* p. 979-980.
34. Hampton, *op. cit.,* p. 1737.
35. The report of the meeting of the Permanent Committee of the Office of International Hygiene in April and May, 1925, indicates that much of its work was becoming auxiliary or supplementary to the League agencies. See *P.H.R.,* Sept. 18, 1925, pp. 1983-1989, for record of proceedings.

CHAPTER XII

National Health Regulations of Commerce

1. E. H. Mullan, "Mental Examination of Immigrants." Reprint from *P.H.R.,* May 18, 1917. This pamphlet gives a description of the examination process at Ellis Island.
2. A person with a quarantinable disease is a dangerous liability for a steamship company to accept for passage, since he may spread the disease among his fellow passengers and cause the vessel to undergo a costly quarantine detention and unfavorable publicity. Effective preliminary quarantine avoids such risk and usually only postpones the trip of those detained at ports of embarkation. On the other hand, an *immigrant* with an excludable defect other than communicable disease, if accepted, will not cause any general delay or detention; it is a fair risk that he may escape detention at the American port or have exemption made in his favor; and if he were excluded at the port of embarkation it would mean permanent loss of a possible passenger. To date, therefore, steamship companies have been much more zealous in assisting in preliminary quarantine inspection than in preliminary immigration inspection.
3. See *Physical Examination of Immigrants* and *Contagious Diseases among Immigrants. Hearings* before House Committee on Immigration and Naturalization, 66 Cong., 3 Sess. (Jan. 11 and Feb. 9, 1921), *passim.*
4. See *Report of the Surgeon-General of the Public Health Service,* 1915, p. 95; also *Contagious Diseases Among Immigrants,* p. 39.
5. *Report of the Surgeon-General,* 1926, pp. 170-194.

6. O. E. Denney, "The Leprosy Problem in the United States," *P.H.R.*, Vol. 41 (May 14, 1926), p. 923.
7. See *Annual Report of the Surgeon-General*, 1913, pp. 191-192, 1917, p. 238; 1918, p. 82; 1919, pp. 78-79.
8. See *Annual Report of the Surgeon-General*, 1919, p. 79.
9. *Annual Conference of the State and Territorial Health Officers with the Public Health Service*, 1925, pp. 87-89.
10. Abbott, *Present and Past Conditions of Public Hygiene in the United States*, p. 32.
11. *Annual Report of the National Board of Health*, 1879, p. 77.
12. I am indebted to two of my students, Rufus B. Cowing III, and William Loeb, Jr., for this analysis of the Congressional history of the Pure Food and Drugs Act.
13. See *Congressional Record*, 59 Cong., 1 Sess., pp. 1218, 1414, 2748.
14. See *Report of the Chemist*, 1917, p. 13.
15. *Report of the Chemist*, 1921, p. 15.
16. There are in addition several technical defects in the Food and Drugs Act which have been pointed out frequently in annual reports of the Secretary of Agriculture. These are the failure to legalize standards for foods, lack of authority to punish false statements other than those on the label, incompleteness of the list of habit-forming drugs which must be named on the package, and failure to include virulent poisons in the regulations.
17. See *Report of the Surgeon-General*, 1925, pp. 112-114; 1926, pp. 126-128; *Annual Conference of State and Territorial Health Officers*, 1925, pp. 90-95.
18. In 1926 thirty-seven domestic and eleven foreign establishments were licensed. *Annual Report of the Surgeon-General*, 1926, p. 69.

CHAPTER XIII

Vital Statistics, Scientific Investigation, and Education

1. John Stuart Mill, *Representative Government*, 1891 edition, pp. 283 ff.
2. C. L. Wilbur, *The Federal Registration Service*, pp. 8, 9. His excellent summary of the development of the registration service is used quite extensively in this account.
3. *National Board of Health Bulletin*, Feb. 11, 1882, p. 295.
4. Wm. H. Davis, "Necessity for Completing the Registration

Area by 1930," *American Journal of Public Health,* May, 1925, p. 399.

5. *Ibid.,* pp. 401, 404.
6. *Why Should Births and Deaths be Registered,* American Medical Association (pamphlet), p. 1.
7. C. L. Wilbur, *The Federal Registration Service,* p. 43.
8. Trask, "Vital Statistics," Suppl. No. 12 to *P.H.R.,* April 3, 1914, pp. 29-30.
9. *Report of the Surgeon-General of the Marine Hospital Service,* 1878-79, p. 17.
10. Dublin and Kopf, *Some Considerations in Vital Statistics Education* (pamphlet).
11. *Report of the Surgeon-General,* 1913, p. 233.
12. Hampton, "Collection of Morbidity Data," Nov. 30, 1923, p. 2829; *Report of the Surgeon-General,* 1926, p. 196.
13. See J. B. Lloyd, "A Plan to Establish in the United States a Morbidity Registration Area," *P.H.R.,* July 24, 1925, pp. 1549-1559. This matter has been discussed in the Conferences of State and Territorial Health Officers with the Public Health Service during recent years.
14. *Report of the Surgeon-General,* 1920, p. 202.
15. Cabell. "Review of the Operations of the National Board of Health," *Reports and Papers,* VIII, pp. 91-99.
16. *Report of the Surgeon-General,* 1888, p. 11.
17. *Ibid.,* 1905, p. 198.
18. Edward Francis, "Deer Fly Fever," *P.H.R.,* Vol. 34, Sept 12, 1919.
19. *See Report of the Surgeon-General,* 1912, pp. 22-24; 1913, p. 42; 1914, p. 18; 1919, pp. 37-38, 59; 1920, pp. 18, 44, 46, 50.
20. *Ibid.,* 1924, pp. 32-33.
21. Wanlass, *Department of Agriculture;* also annual reports of the various bureaus and divisions of the Department of Agriculture.
22. See *Congressional Record,* 62 Cong., 1 Seses., pp. 244, 1051; *Senate Report* 141, 62 Cong., 1 Sess. (1911)
23. *Agricultural Yearbook,* 1923, p. 19.
25. An appraisal of the future and needs of public health education, Upholding the treaty power against state police power by a group of experts, is made in a mimeograph report issued by the Public Health Service, entitled *Public Health Education: Report on the Results of a Preliminary Questionnaire,* U.S. Public Health Service, April 1, 1922, 11 pp.

CHAPTER XIV

Federal Stimulation and Aid

1. *Annual Report of the Surgeon-General of the U.S. Public Health Service,* 1888, p. 38. For plague in San Francisco, see Ch. XI.
2. The usual practice is to have the Annual Conference of State and Provincial Health Boards of North America at the same place and just before or after the Surgeon-General's Conference. The personnel of both organizations is practically the same.
3. See *Children's Year,* Children's Bureau Pub. No. 67, 1920, *passim.*
4. *Minimum Standards for Child Welfare,* Children's Bureau Pub. No. 62.
5. Robert Olesen, "How to Measure the Efficiency of Local Health Officers," Reprint 636 from *P.H.R.,* Jan. 14, 1921.
6. *The Percentage of Venereal Diseases among . . . Second Million Drafted Men—By Cities.* V.D. Pamphlet No. 47, U.S.P.H.S., 1919.
7. *How to Fight Venereal Diseases in Your City.* V.D. Pamphlet No. 48, U.S.P.H.S.; also, *Relative Standing of 444 Cities,* V.D. Bulletin No. 57, U.S.P.H.S.
8. L. L. Lumsden, "Rural Sanitation," *Public Health Bulletin No. 94,* pp. 20, 21.
9. L. L. Lumsden, "Coöperative Rural Health Work of the P.H.S. in the fiscal year, 1920," *P.H.R.,* Oct. 1, 1920.
10. Warren and Bolduan, "War Activities of the U.S.P.H.S." Reprint 53 from *P.H.R.,* June 6, 1919, pp. 1243-1267. This also appeared as Reprint 531.
11. Louis I. Dublin, *County Health Organization in the U.S.,* 1915, 14 pp.
12. L. L. Lumsden, "Extent of Rural Health Work in the U.S., 1922-1926," *P.H.R.,* May 7, 1926, pp. 870-881.
13. Warren and Bolduan, *op. cit.*
14. Lumsden, "Coöperative Rural Health Work of the P.H.S.," *P.H.R.,* 1920, p. 8; 1921, p. 3; 1923, p. 293; 1926, p. 2385.
15. Lumsden, "Coöperative Rural Health Work," 1921, p. 14; also J. R. Parran, "Coöperative County Health Work," *P.H.R.,* May 15, 1925, pp. 983-992.
16. *Ibid.,* 1923, p. 2949; 1925, pp. 940-941; 1926, p. 2384.

17. R. H. Von Ezdorf, "Demonstrations of Malaria Control," *P.H.R.*, Mar. 10, 1916, pp. 614-629; also R. C. Derivaux, *et al.*, "Malaria Control," *Public Health Bulletin No. 88*, Sept., 1917, 57 pp.
18. *Annual Report of the Surgeon-General*, 1920, p. 17.
19. *Ibid.*, 1924, p. 16.
20. *Annual Report of the Virginia Board of Health*, 1915, p. 46.
21. *Annual Report of the Surgeon-General*, 1924, p. 71.
22. *Hearings before the Senate Committee on Military Affairs*, 65 Cong., 2 Sess., June 18, 1918, esp. pp. 77-78.
23. M. M. Dietzler, *Detention Houses and Reformatories*, . . . U.S. Interd. Soc. Hyg. Board, 1922, esp. pp. 1-36.
24. Report of the U.S. Interd. Soc. Hyg. Board, 1920, Part 1, esp. pp. 128-151; *Ibid.*, 1922, pp. 3-7; *Manual for the Various Agents of the I.S.H.B., passim.*
25. *Report of the U.S. I.S.H.B.*, 1922, p. 4.
26. *Ibid.*, p. 5.
27. "Regulations Governing Allotment of Funds for V.D. Prevention Work." Reprint 485, *P.H.R.*, Sept. 13, 1918.
28. "Suggestions for State Board of Health Regulations for the Prevention of V.D." Reprint 459, from *P.H.R.*, March 29, 1918.
29. *Two Years Fighting V.D.*, V.D. Bulletin 65, of U.S.P.H.S.; H. H. Moore, "Four Million Dollars for the Fight against Venereal Diseases," *Social Hygiene*, Jan. 1919, pp. 15-22; C. C. Pierce, "The P.H.S. Campaign against Venereal Diseases," *Social Hygiene*, Oct. 1919, pp. 415-439.
30. See annual reports of the Surgeon-General, 1919-1925, incl.
31. *Hearings before House Committee on Labor*, on H.R. 12634, Jan. 15, 1919, 65 Cong., 3 Sess. (60 pp.), *passim.*
32. *Ibid.*, p. 47.
33. *Hearing before Senate Committee on Public Health and National Quarantine*, May 12, 1920, 66 Cong., 2 Sess. (58 pp.), *passim.*
34. *Hearing before House Committee on Interstate and Foreign Commerce*, on H.R. 2366, July 12, 23, 1921, 67 Cong., 1 Sess., and before *Senate Committee on Education and Labor* on S. 1039, April 25, 1921, 67 Cong., 1 Sess., *passim.*
35. *The Promotion of the Welfare and Hygiene of Maternity and Infancy.* Children's Bureau Pub. No. 137. Contains regulations and history of administration of Act for first year.
36. *Ibid.*

37. *Annual Report of the Chief of the Children's Bureau,* 1923, p. 3; 1924, p. 48.
38. See annual reports of the Chief of the Children's Bureau 1922, 1923, 1924, 1925, 1926.
39. For an opinion of the then Governor of Maine, Percival Baxter, opposed to federal aid see *Congressional Record,* 67 Cong., 2 Sess. (July 20, 1922), pp. 10449-10450.
40. For testimony regarding the operations of the law see *Senate Doc.* 120, 69 Cong., 1 Sess., *Maternity and Infancy Act Letters, etc. . . . Commending the Maternity and Infancy Act,* 1926 (31 pp.).
41. S. 2507 introduced by Senator France, 66 Cong., 1 Sess.
42. H.R. 11778 introduced by Rep. Rainey, Jan. 15, 1920, 66 Cong., 2 Sess.
43. S. 3950 and H.R. 12652, 66 Cong., 2 Sess.
44. For instance, H.R. 5184, introduced Dec. 12, 1924 (68 Cong., 2 Sess.), proposing aid in amounts nearly equivalent to those now provided in the Maternity and Infancy Act.

CHAPTER XV

Public Health and the Federal Problem

1. Henry L. West, *Federal Power, its Growth and Necessity,* New York, 1918, pp. 197-198.
2. *The New Republic, editorial,* June 15, 1921, pp. 51-62.
3. *New York Times,* March 12, 1926, reporting Borah's speech against a federal department of education. See also speeches and writings of President Nicholas Murray Butler during recent years.
4. Speech in House of Representatives, Feb. 22, 1921.
5. Address before Tammany Society, July 5, 1922, reported in *New York Times,* July 6, 1922.
6. Wm. H. Taft, *Popular Government,* p. 155, quoted in Walter Thompson's *Federal Centralization,* p. 363.
7. See Bryce, *Modern Democracies,* Vol. I, pp. 129-133. For a current use of argument see a speech by Senator Bingham of Connecticut at Hartford, March 18, 1926.
8. S. Gale Lowrie, "Centralization *vs.* Decentralization," *American Political Science Review,* Vol. XVI, 1922, p. 382.
9. Quoted in Thompson, *Federal Centralization,* p. 381.
10. A. J. McLaughlin, "Proper Relation of Federal and State

Governments in Public Health Work," *P.H.R.*, Sept. 26, 1919, p. 2147.

11. Address by Dr. Wm. O. Woodward, Health Officer of District of Columbia at Conference for Good City Government, 1907, *Proceedings*, p. 358. See also *Report of the Surgeon-General of the Public Health Service*, 1924, p. 286.
12. For extended history of federal financial aid see D. K. Brown, *Federal Aid to the States*, Washington, 1926 (pamphlet); also A. F. MacDonald, *Federal Subsidies to the States*, Philadelphia, 1923. These two sources are used extensively in the account given here of the general aspects of the federal-aid system.
13. See Sidney Webb, *Grants-in-Aid*, p. 91, for similar conclusion regarding British grants.
14. Albert Ritchie, *Federal Subsidies to the States*, p. 14. For a more lurid account of the effects of federal aid note the following quotation from the same author: "It is one of the most prolific feeders of waste and incompetence in the country today, because it is directly responsible for a large part of the bureaucratic government which has gripped Washington and which has caused the personnel of Federal bureaus to grow 25 per cent since 1914—the year the system began—and five times faster than the population of the country." Or this account taken from a letter to the *New York Times*, Feb. 10, 1924, by F. W. Grinnell of Boston: "This Federal Aid policy . . . will . . . grow into a giant political automaton with a tremendous power of suction in regard to the control of local affairs in the States and the consequent weakening of the sense of individual responsibility, which is the basis of the idea of local self-government and part of the strength of the nation."
15. See Chapters II and III for legal basis of this conclusion.
16. H. J. Laski, *The Problem of Administrative Areas*, Smith College Studies in History, Vol. IV, Oct., 1918, p. 18.
17. S. Webb, *Grants in Aid*, p. 6. For similar conclusions, see also MacDonald, *Federal Subsidies to the States*, pp. 5-7; and Beard, *American Government and Politics*, 4th edition, 1925, p. 450.
18. From Memorial Day Speech, May 30, 1925.
19. Ritchie, *Federal Subsidies to the States, passim.*
20. For this criticism of the Ritchie figures I am indebted to the pamphlet entitled "Who Pays Uncle Sam's Bills?" a reprint from *American Highways*, October, 1925. See also a vol-

ume published by the National Bureau of Economic Research, *Income in the Various States,* 1919, 1920, and 1921, by Maurice Leven, esp. Chs. I and XI, for statement regarding the importance of a few very large personal incomes in state income totals.

21. U. S. Treasury Department, *Statistics of Income,* 1922, p. 30.
22. See, for instance, the followning: C.—E. A. Winslow, "Public Health at the Crossroads," *American Journal of Public Health,* Vol. XVI (Nov., 1926), pp. 1075-1085; *Ibid.*, "The Untilled Fields of Public Health," *Modern Medicine,* Vol. II (1920), p. 9; Sir Arthur Newsholme, "The Increasing Socialization of Medicine," *The Survey,* Jan., 1920, pp. 357-360; Eugene R. Kelley, "The Modern Public Health Movement," *Commonhealth,* Nov., Dec., 1921, pp. 259-267; H. H. Moore, *Public Health in the United States,* 1923, esp. Part VI.
23. See H. G. James, *Local Government in the United States,* Ch. 1; and B. G. Bannington, *English Public Health Administration,* London, 1915, for confirmation of this same point of view derived from English experience.

CHAPTER XVI

The Attempts at National Health Reorganization

1. Christopher C. Cox, "A Report upon the Necessity of a National Sanitary Bureau," *Public Health: Reports and Papers Presented at the Meetings of the American Public Health Association in the Year 1873,* Vol. I, N. Y. (1875), pp. 522-532.
2. Henry I. Bowditch, "The Future Health Council of the Nation," *Transactions of the American Medical Association,* Vol. XXVI (1875), p. 301.
3. *Ibid.*, p. 307.
4. See Bentham's *Works,* Vol. IX, Sec. X, under the general heading, "Constitutional Code." Bentham's ideas of central health administration also influenced very directly his disciples—Edward Chadwick and Dr. Southwood Smith—in their plans for English public health organization, which eventuated in the Public Health Act of 1848, creating the General Board of Health. See Sir Malcolm Morris, *The Story of English Public Health,* 1919, pp. 25, 26.
5. H. I. Bowditch, *op. cit.*, pp. 391-399. See also, *Life and Corre-*

spondence of Henry Ingersoll Bowditch (two vols.), Vol. 2, 1902.

6. During this period the chairmen and prominent speakers of the Section were Dr. Billings, Dr. Bowditch, Dr. Bell, Dr. Baker of Michigan, Dr. Wirt Johnson of Mississippi, and Dr. S. A. Chaillé of Louisiana, all of whom were identified with the program of the American Public Health Association, and later with the National Board of Health.
7. For an account of national quarantine legislation and Congressional proposals for such legislation from 1798 to 1879, see Wm. H. Allen, "The Rise of the National Board of Health," *Annals of the American Academy of Political and Social Science,* Vol. XV (1900), pp. 51-68.
8. Dr. Stephen Smith, "On the Progress of Public Health Organizations in the United States," *Public Health: Reports and Papers presented at the Twenty-Ninth Annual Meeting of the American Public Health Association,* Vol. XXVII (1901), pp. 21, 22. This suggestion of Dr. Smith's was prophetic of the actual development of the Service, except for the episode of the National Board of Health.
9. Dr. Billings noted that these two groups appeared as early as 1874 in discussions over the bill for a national quarantine bureau, based on Dr. Harvey Brown's report. See John S. Billings, M.D., "The National Board of Health and National quarantine," *Transactions of the American Medical Association,* Vol. XXXI (1880), p. 438.
10. See Dr. Stephen Smith, *op. cit.,* p. 23.
11. Richardson, *Messages and Papers of the President,* Vol. VII, p. 492.
12. Dr. Stephen Smith, *op. cit.,* p. 24.
13. J. S. Billings, "National Health Legislation on Trial," *The Sanitarian,* Vol. VII (1879), p. 503.
14. 45 Cong., 3 Sess., *Senate Reports* II (Feb. 1879), p. 734.
15. Dr. Stephen Smith, *op. cit.,* p. 24.
16. J. L. Cabell, M.D., "The National Board of Health," *The Sanitarian,* Vol. VIII (1880), p. 2. According to Dr. Cabell, "The credit of planning and formulating the several propositions, and subsequently of bearing the largest share of the burden of the practical work needed to carry them into effect, was due to Dr. Billings of the Army."
17. *Ibid.*
18. President Cabell later offered the following explanation of the provision: "This idea of assisting the State Boards of Health

by paying one-half of their expenses (on certain conditions) was derived from the practice of the Local Government Board in England (the Central Health Authority) which is charged, among other things, with the distribution of funds appropriated by Parliament for Sanitary uses, and which, in the execution of this duty, assumes with reference to certain outlays for sanitation a moiety of the expenses incurred by the local authorities. The operation of this principle in that country has been attended with the happiest results. . . ." J. L. Cabell, *op. cit.*, pp. 4, 5.

19. The National Academy of Sciences, created March 3, 1863, had as one of its provisions of incorporation the following: "The Academy shall, whenever called upon by a department of the Government, investigate, examine, experiment, and report upon any subject of science or art." It seemed not to have had much active part in the advisory task assigned to it under the bill which finally passed Congress.
20. J. S. Billings, "National Health Legislation on Trial," *The Sanitarian,* Vol. VII (1879), pp. 503, 504.
21. J. L. Cabell, *op. cit. The Sanitarian.* Vol. VIII (1880), pp. 4, 5.
22. Dr. Stephen Smith, *op. cit.*, p. 24.
23. J. L. Cabell, "The National Board of Health," *The Sanitarian,* Vol. VIII (1880), p. 12.
24. *National Board of Health Bulletin,* June 28, 1879, pp. 1-3.
25. See *John Shaw Billings, a Memoir,* by Fielding H. Garrison, M.D., 1915.
26. The account of the operations of the Board is to be found in detail in the *Weekly Bulletin of the National Board of Health,* issued for the following years; 1879, 1880, 1881, 1882, 1883, 1885. A review of the Board's activities was given by its president, Dr. J. L. Cabell, in an address before the American Public Health Association, to be found in *Public Health: Reports and Papers presented at the Meetings of the American Public Health Association,* Vol. VIII (1882), pp. 70-101.
27. The resolution of indorsement may be found in *Public Health: Reports and Papers of the American Public Health Association,* Vol. V (1880), pp. 222, 223.
28. *Transactions of the American Medical Association,* Vol. XXI (1880), p. 451.
29. See *Congressional Record,* 47 Cong., 1 Sess. (July 7, 8, 1882), p. 5799 ff., and (Aug. 4, 5, 1882) p. 6900 ff.

30. *Public Health: Reports and Papers presented at the Meetings of the American Public Health Association,* Vol. VIII (1882), p. 101.
31. *Investigation and Refutation of certain Statements and Charges, Louisiana Board of Health,* New Orleans, 1883, p. 12. See also the Annual Report of the Louisiana State Board of Health for 1881, and a pamphlet entitled "The Louisiana State Board of Health in its annual report for 1881 *versus* the National Board of Health. Reply in behalf of the latter by Stanford E. Chaillé, M.D., Supervising Inspector N. B. H.," New Orleans, 1882.

    The following heading of one of the pamphlets issued by the Louisiana Board illustrates the tone of its attack: "Some facts illustrating the action of the National Board of Health in Louisiana, and the inquisitorial and detective nature of its service, and its conspiracy to undermine and destroy the influence of the State Board of Health, in order that it might magnify its own importance and foist itself upon the notice of Congress for the purpose of obtaining money to sustain its assumptions."
32. *Life and Correspondence of Henry Ingersoll Bowditch,* Vol. II (1902), p. 244.
33. *Public Health: Reports and Papers,* Vol. VIII, p. 101.
34. The authority for this analysis of the failure of the General Board of Health of England is an unpublished lecture by Mr. Graham Wallas, professor *emeritus* at London University.
35. *Public Health: Reports and Papers,* Vol. VIII, p. 101.
36. See *Report of the Surgeon-General of the P. H. S.,* 1894, p. 350.
37. J. Pease Norton, "The Economic Advisability of Inaugurating a National Department of Health," *Journal of the A. M. A.,* Vol. XLVII (Sept. 29, 1906), p. 1003 ff. Also reprinted as a sixteen-page pamphlet.
38. For description of the Committee of One Hundred and this whole movement see Wm. J. Schieffelin, "Work of the Committee of One Hundred on National Health," in *Annals.,* Vol. XXXVII (March, 1911), pp. 321-330.
39. Irving Fisher, *A Report on National Vitality, Its Wastes and Conservation,* Bulletin No. 30 of the Committee of One Hundred on National Health, Washington, G. P. O., 1909.
40. The report of the Commission stated that "There exists a lack of coördination and effectiveness [among the bureaus doing public health work] that can only be overcome by administrative supervision in one department." See Schieffelin, *op.*

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cit., p. 327. President Roosevelt was opposed on general grounds to the enlargement of the Cabinet; thus his advocacy of a bureau rather than a department of health.

41. See *Schieffelin, op. cit.*, p. 326.

42. See also speech by President Taft at Albany, March 19, 1910, in which he advocated an independent health bureau. *New York Times,* March 20, 1910.

43. S. 6102 and S. 6101 provided for the creation of a school of hygiene in the Public Health Service, gave it broader powers of investigation, and increased and reorganized the salary basis of the commissioned officers to correspond with similar grades in the Army. Identical with it was H. R. 18794. These bills were probably originated without much reference to the purposes of the Committee of One Hundred. Fathered by Senator Gallinger S. 6102 passed the Senate in the 2nd (short) session of the 60th Congress (Dec. 1908-March 4, 1909). But although reported out in the House (House Report 1703) it failed to pass.

At the 3rd session of the 61st Congress Rep. Mann introduced (Jan. 5, 1911) practically the same bill minus the school of hygiene and with a provision for shortening the title of the Service by eliminating "Marine Hospital." This bill passed the House. An identical bill (S. 9909) introduced by Senator Martin failed to receive consideration in the Senate.

At the first session of the 62nd Congress Mann renewed his bill as H. 8662, May 4, 1911. (Rep. Edwards introduced identical bills, H. 5599 and later H. R. 11171.) Senator Martin succeeded in having the salary part of the Mann bill passed the Senate as S. 2117 on June 20, 1911.

At the second session this bill was amended in the House to include the provisions of the Mann bill, passed the House, passed the Senate as amended, and became a law Aug. 16, 1912, the only health proposal to be enacted during these three years.

During this period Mr. Mann also introduced, by request, H. R. 24865 (April 23, 1910, 61 Cong., 2 Sess.) to create a bureau of health in the Department of Commerce and Labor and to transfer to it the Public Health Service and other health units. So also, Senator Smoot on March 22, 1912 (62 Cong., 2 Sess.), introduced S. 5982 providing for a bureau of public health in the Treasury with an assistant secretary at its head and transferring to it the Vital Statistics Division of the Census. He renewed this proposal in suc-

ceeding sessions as follows: S. 6782, May 11, 1912; S. 278, April 7, 1913; and S. 65, Dec. 7, 1915. Senator MacCormick (May 28, 1919, 66 Cong., 1 Sess.) introduced S. 454 transferring the Public Health Service to the Interior Department. Rep. Frear introduced H. R. 3736, an identic bill in the House. Other health bureau bills have been filed in one House or the other at practically every session since 1910.

44. See *Statement of Professor Fisher . . . before the Committee on Interstate and Foreign Commerce of the House* . . . Feb. 13, 1909 . . . on S. B. 6102 (published as a pamphlet).

45. For Owen speech see *Congressional Record,* 61 Cong., 2 Sess. (March 24, 1910), pp. 3647-3677.

46. The first Owen bill was S. 6049, introduced Feb. 1, 1910 (61 Cong., 2 Sess.). Identical House bills at the same session were H. R. 24549, 24828, 24827.

Senator Owen renewed the bill (S. 10408) at the 3rd session, providing specific transfer of health units to the new departments.

S. 1 introduced by him at the first session of the 62nd Congress, April 6, 1911, provided for a non-Cabinet department or independent service, following President Taft's preferences. House bills identical with S. 10408 and S. 6049, respectively, were introduced as follows by Rep. Dyer: H. R. 11724, June 16; and H. R. 11035, June 2, 1911.

Returning to the model of a Cabinet department Senator Owen renewed his bill at succeeding sessions as follows: S. 1, April 7, 1913 (63 Cong., 1 Sess.); S. 1, Dec. 7, 1915 (64 Cong.); S. 3, April 4, 1917 (65 Cong.); S. 814, May 26, 1918 (66 Cong.), etc. Occasional identical bills appeared in the House.

47. House Doc. 458, 62 Cong., 2 Sess. (Jan. 17, 1912), *Outlines of Organization of the Government.*

48. See Schieffelin, *op. cit.,* p. 329. See also, for typical argument of opposing lobby, Parker H. Sercombe, *Health Conservation and Well Communities vs. Materia Medica and Sick Communities,* Senate Document 647, 62 Cong., 2 Sess. (May 7, 1912). The newspapers and magazines during 1910-1912 contain illustrations of the propaganda *pro* and *con.* A speech by Senator Owen, May 25, 1910, *Congressional Record,* pp. 6847-6848 (61 Cong., 2 Sess.), described the methods of the "anti" propaganda.

49. Note the following colloquy on the floor of the Senate Aug. 13, 1912, when the bill was receiving its final consideration:

SENATOR BURTON—"Is it a substitute for the various measures which are pending here for consideration of the different agencies pertaining to the public health?" SENATOR FLETCHER—"No, it does not involve these bills."

SENATOR BURTON—"Then what is the object of this bill?"

SENATOR MARTIN [in charge of the bill]—"I will say to the Senator from Ohio that it supersedes those bills and makes them unnecessary at present. It entirely removes them from present consideration. There are various health bills. One is the Owen bill, and there are a number of bills of that sort. . . . This supplants them and makes them unnecessary, certainly for the present."

A similar explanation was given by Rep. Mann in the House. See *Congressional Record* (Feb. 27, 1911), p. 3620.

50. S. 2507 introduced by Senator France (July 17, 1919, 66 Cong., 1 Sess.) provided for a Cabinet secretary and three assistant secretaries, one of whom was to be a woman and all of whom were to be qualified experts. An advisory board was provided as in several of the Owen bills and the provisions for transfer of units were practically the same as those provided in the Owen bills.

51. In 1918 Senator Owen had introduced Concurrent Resolution 22 authorizing the creation of a joint committee on general administrative reorganization, but nothing came of it. Senator France's resolution was Con. Res. 22. The Smoot-Reavis resolution, as it was called (S. J. Res. 191), was introduced in the Senate April 16, 1920, by Senator Smoot. The Senate members of the Committee as appointed by the Vice-President were Senators Smoot, Wadsworth, and Harrison. The original House members were Representatives Reavis, Temple, and Moore. Mr. Reavis was succeeded in turn by Judge Webster and later by Mr. Mapes, who became the chairman of the House group on the Committee.

52. See *Hearings* on S. 408, to establish a Department of Social Welfare, April 21, 1921, pp. 5-20, where General Sawyer attempted an explanation of his charted plan.

53. See *Joint Hearings* before the Education Committees of House and Senate on S. 1607 and H. R. 5837, May 11-20, 1921, esp. pp. 17, 51-52, 63, 102, 131, 148.

54. See *Senate Document 302*, 67 Cong., 4 Sess. A preliminary view of Mr. Brown's own ideas regarding reorganization may be obtained from an article in the *Review of Reviews*,

Aug. 1921, pp. 171-175, by Harlean James, entitled "Remaking the Federal Administration."

55. See *Hearings* on S. J. Res. 282, Jan. 7-31, under title *Reorganization of Executive Departments,* containing testimony of various Cabinet and bureau chiefs. Joint Committee changes and reasons therefor are to be found in the joint report presented June 3, 1924, and published as *Senate Doc.* 128, 68 Cong., 1 Sess.
56. See testimony of the House chairman, Hon. Carl Mapes, before House Committee on Rules, Jan. 15, 1926, contained in *Hearings* on H. R. 4770.
57. *Reorganization of the Administrative Branches of the Government, Hearings on H. R.* 4770, Jan. 15, 1926.
58. See *American Journal of Public Health,* Aug., 1924, p. 732.
59. See *Journal of the A. M. A.,* Feb. 7, 1925, Dec. 20, 1924, and Jan. 10, 1925; *American Journal of Public Health,* March, 1925, p. 284; also May, 1923, pp. 394-395.
60. The committee consisted of Dr. Lee Frankel, Chairman of the American Public Health Association, Drs. C.-E. A. Winslow, Linsley R. Williams, W. F. Snow, Milton J. Rosenau, Haven Emerson, and Mr. James A. Tobey, the last of whom carried on most of the actual investigation preparatory to the framing of the bill.
61. For text of the bill see *American Journal of Public Health,* April, 1926, pp. 411-412.

CHAPTER XVII

Public Health and National Administrative Reorganization

1. See *Report of Machinery of Government Committee of the British Ministry of Reconstruction,* pp. 7, 8.
2. See John T. Pratt, "Proposal for Government Reorganization," *Proceedings of the Academy of Political Science,* July, 1921, p. 26, for development of this point.
3. See Chapter VIII.
4. The British *Machinery of Government Report* develops this same general point of view.
5. See *Message of the President of the United States Transmitting to the Two Houses of Congress the Budget for the Fiscal Year Ending June 30, 1923, and the Report of the Director of the Bureau of the Budget,* 1921, esp. pp. 19-41, 43-46.

6. *Ibid.* See also annual reports of the Director of the Bureau of the Budget to the President of the United States, esp. for year ending June 30, 1926.
7. See *Reorganization of the Administrative Branches of the Government,* Hearings before the House Committee on Rules on H. R. 4770, 69 Cong., 1 Sess. (January 15, 1926).
8. See Willoughby, Willoughby, and Lindsay, *The Financial Administration of Great Britain,* pp. 178-191.
9. *The Constitution and Government of the State of New York: Municipal Research, Bulletin* No. 61, May, 1915, pp. 89 ff. Also Hughes Report on the constitution of New York state departments, reported in *New York Times,* March 2, 1926.
10. The Public Health Service publishes long lists of coöperative activities in which it has engaged from time to time. A running account of such work may be obtained from a perusal of the *Annual Report of the Surgeon-General.*
11. See, for instance, J. A. Tobey, *The National Government and Public Health,* pp. 393-394.
12. See George E. Vincent, *Review for 1921, The Rockefeller Foundation,* pp. 8-13; C.-E. A. Winslow, "The Untilled Fields of Public Health," *Modern Medicine,* March, 1920, p. 4; H. H. Moore, *Public Health in the United States,* 1923, pp. 373-389.
13. *Report of the Joint Committee on Reorganization,* June 3, 1924, pp. 16-19, 36; *Hearings before the Joint Committee on Reorganization,* Jan. 7-31, 1924, pp. 329-335. See also Willoughby, *Reorganization of the Administrative Branch of the National Government,* pp. 140-197.
14. *Annual Report of the Surgeon-General of the P. H. S.,* 1924, p. 193.
15. *Fifth Annual Report of the Director, Bureau of the Budget to the President of the U. S.,* 1926, esp. pp. 23 ff, 44-68.
16. *Report of the Joint Committee,* pp. 13-16, 36-37.
17. See *Hearings before House Committee on Rules on H. R. 4770* (69 Cong., 1 Sess.), Jan. 15, 1926, pp. 11-12; *Hearings before Joint Committee on Reorganization,* pp. 510, 522. See also *American Journal of Public Health,* May, 1923, pp. 394, 395 (editorial).
18. *Report of the Joint Committee,* pp. 35-37.
19. *Hearings before the Joint Committee,* pp. 211-212; see also Chapter IX *ante.*
20. *Ibid.,* p. 213.
21. The Willoughby plan appears in his *Reorganization of the*

Administrative Branch of the National Government, pp. 274-288, also in *Hearings before Joint Committee,* pp. 65-66. For testimony of Secretary Weeks, opposed to any transfer of Bureau of Insular Affairs from War Department, see *Ibid.,* pp. 108-116.

22. On the other hand, see argument for transfer in *Willoughby,* pp. 247-248. The preliminary and final plans of the Joint Committee did not provide for this transfer.
23. See Tobey, *op. cit.,* p. 392.
24. Liaison officers have already been established in some instances.
25. The Public Health Service has done this in several cases—*i.e.,* its occupational studies for the Bureau of Engraving and Printing, detail to the Employees Compensation Commission, Bureau of Public Roads, and various other governmental services.
26. Most of the reorganization plans have recommended this transfer. It was not, however, a part of the proposals of the Joint Committee or of the Sawyer-Kenyon plan for a department of public welfare. *Willoughby,* pp. 245-246, gives an effective argument for the transfer.
27. L. F. Schmeckebier, *The Statistical Work of the National Government,* p. 5. Also, see Hoover testimony before Joint Committee on Reorganization, *Hearings,* p. 339, where he said: "Statistics by some of the theoretical reorganizers of the Government have been thought to require much consolidation. Statistics to my mind are merely an instrument in accomplishing the major purpose of a given bureau or a given department."
28. See statement by the Chief of the Children's Bureau before the Joint Committee on Reorganization, *Hearings,* pp. 634-635.
29. For discussion of transfer see Joint Committee *Hearings,* pp. 630-635.
30. For Mellon testimony on this point see Joint Committee *Hearings,* pp. 204-206. For statement by the Surgeon-General regarding the same matter see *Joint Hearings before Committee on Education* (67 Cong., 1 Sess.) on S. 1607 and H. R. 5837, to *Establish a Department of Public Welfare,* p. 148.
31. *Ibid.,* pp. 159-160.
32. See, for instance, *Ibid.,* pp. 51-53.
33. The appropriations for the services which would be included in a consolidated health agency are about twelve millions per year. The total federal budget is about three and a

quarter billion. Thus the health expenditures are about one-half of one per cent. The total personnel concerned with public health activities is about 5,000, or about 1 per cent of the more than half-million federal employees. See Tobey, *op. cit.*, pp. 253-256, for estimates.

34. "We must bear in mind that administrative reform must be the work of Congress and not of the Executive. Indeed, it is not far from true to say that administrative reform presupposes at least a measure of Congressional Reform."—H. L. McBain in *Proceedings of the Academy of Political Science,* July, 1921, p. 5.
35. These figures are compiled from the *Congressional Directory* and *Congressional Record.* It should be noted that there are at any one time only a few members of the medical profession in Congress. In the 67th Congress (1921-1923), for instance, there were only two senators who were or had been physicians (there was one lawyer who had lectured on medical jurisprudence); in the House there were six physicians, one dentist, one pharmacy graduate, and one former municipal health commissioner of Lawrence, Massachusetts. See *American Journal of Public Health,* October, 1922, p. 871.
36. Dr. Willoughby in the *Problem of a National Budget,* 1918, argues for a system of committees based upon the administrative structure.
37. See *Proceedings of Academy of Political Science,* July, 1921, pp. 134-135.

CHAPTER XVIII

The Public Health Personnel Problem

1. *Transactions of the Conference on the Future of Public Health in the United States and the Education of Sanitarians, . . .* U. S. Public Health Service Bulletin No. 126, 1923, p. 59.
2. *Ibid.,* pp. 59-62.
3. For an important discussion of the status and tenure of bureau chiefs see A. W. Macmahon's "Selection and Tenure of Bureau Chiefs in the National Administration of the United States," *American Political Science Review,* Vol. XX, (Aug., 1926), pp. 548-582, and Nov., 1926, pp. 770-811.
4. The best source from which to obtain an understanding of the commissioned corps system is Reprint 719 from the *P. H. R.,* Dec. 23, 1921, a pamphlet of information for candidates

desiring to enter the Service. For detailed information one should also consult the *Regulations for the Government of the U. S. Public Health Service, 1920.*

5. See Mayers, *The Federal Service,* p. 479.
6. *Regulations for Government of the U. S. P. H. S.,* 1920, Par. 65.
7. *Annual Report of the Surgeon-General,* 1926, p. 289.
8. Mayers, *The Federal Service,* p. 319, note. There is a regulation providing that during an emergency a regular corps officer may be appointed as a reserve officer in a higher grade so that his title may be more commensurate with his duties. At the end of his temporary assignment he returns to his old rank.
9. See *Hearings* before the special committee, Nov. 25-Dec. 5, 1921. Also *Congressional Record,* May 8-June 2, for debate on H. R. 10972. A description of the Act is given by Schmeckebier, *The Public Health Service,* pp. 162-182.
10. Adapted from Schmeckebier, *The Public Health Service,* p. 170.
11. W. C. Rucker, "The U. S. P. H. S. as a Career," *Misc. Public. No. 13, U. S. Public Health Service,* p. 3.
12. Mayers, *The Federal Service,* pp. 218, 219.
13. Reprint from the *P. H. R.,* Feb. 7, 1919, pp. 230-232.
14. *P. H. R.,* Nov. 1, 1918, pp. 1856-1866.
15. The text of the Classification and other civil service laws and regulations is to be found in *U. S. Civil Service Commission, Civil Service Act and Rules . . . Amended to Sept. 1, 1924.* For able discussions of the principles of reclassification and of the other features of the classified service system see the *Report of the Congressional Joint Commission on Reclassification of Salaries,* March 12, 1920, esp. Part I (pp. 8-132), also Mayers, *The Federal Service,* which was published just before the passage of the Classification Act.
16. See Macmahon, "Selection of and Tenure of Bureau Chiefs, . . ." *American Political Science Review,* Aug., 1926, pp. 548-582.
17. *Civil Service Acts and Rules . . .* 1924, p. 43. This is Rule II, Section 10.
18. *Civil Service Retirement and Salary Classification Laws,* Washington, 1925, pp. 1-14. As pointed out in the *Annual Report of the U. S. Civil Service Commission,* 1926 (p. XIV), the retirement provisions discriminate against all employees with an annual salary greater than $1,500, and also against employees with longer than thirty years of service.

19. See, for instance, the Parker bill presented to Congress at the last session (H. R. 4770 and S. 1334, 69 Cong., 1 Sess.).
20. See address by the late Professor George C. Whipple, reported in the "Transactions of the Second Annual Conference of State Sanitary Engineers," Boston, June 2, 1921, *Public Health Bulletin* No. 123, Washington, 1922, p. 44. In this address he chides the federal medical and health agencies for not giving equal standing to sanitary engineers. In 1924 a bill for commissioning the sanitary engineers was drawn up with the approval of the Surgeon-General and Treasury Department, but was vetoed by the Budget Bureau as being opposed to the Presidential economy policy and was not pushed in Congress. In 1925-26 the same bill was joined to the proposal for reorganization of the federal health services and caused that bill to have a similar fate.
21. The Foreign Service personnel system in all of its aspects presents an instructive comparison with the Public Health Service commissioned corps since it is an example of a closed promotion corps without military insignia, rank, or title. See descriptive pamphlet issued by the State Department, entitled *The Foreign Service*.
22. Mayers makes this suggestion in his book, p. 479.
23. The Joint Reclassification Commission in its *Report*, esp. p. 110, stressed the need of more intelligent recruiting.
24. For opposite point of view, however, see statements of then Secretaries Weeks and Denby printed in the special pay committee hearings and quoted by Congressman McKenzie in the House debate, May 8, 1922 (*Congressional Record*, p. 7146, 67 Cong., 2 Sess.). Both defended the necessity of relating compensation increases to promotions made on the basis of efficiency.
25. Salary, promotion, and security are, of course, not the only elements in creating a desirable public health career. Red tape and low morale are important drawbacks. On this point see quotation of evidence from college authorities as to why men are not attracted to positions in the national civil service in *Report of the Joint Reclassification Commission*, pp. 99-100.
26. See the very interesting report of results from a questionnaire issued to medical students by Dr. Edward O. Jordan, in *Transactions of the Conference on the Future of Public Health in the U. S. and the Education of Sanitarians*, pp. 76-78.

BIBLIOGRAPHY

A Selected and Annotated List of References for the Study of Federal Public Health Administration, Arranged by Chapters and Subjects *

EVOLUTION OF AMERICAN PUBLIC HEALTH ORGANIZATION

(chapter I)

The Public Health Movement

Hemenway, Henry Bixby: *American Public Health Protection.* Indianapolis. 1916. 283 pp.

Practically the only attempt in book form to describe the evolution and organization of the public health agencies in the United States. Quite popular and sketchy.

Osler, Sir William: *The Evolution of Modern Medicine.* Yale University Press, New Haven. 1921.

Ravenel, M. P. (ed.): *A Half Century of Public Health.* New York. 1921. 452 pp.

Winslow, C.-E. A.: *The Evolution and Significance of the Modern Public Health Campaign.* Yale University Press, New Haven. 1923. 65 pp.

These three volumes present sketches of the evolution of preventive medicine which are useful for obtaining a picture of the general background of the American public health movement. Many of the details regarding its leading figures are to be found only by consulting biographies and obscure magazine articles.

* This list of references is not intended to be inclusive. More complete bibliographies on various phases of the public health field may be obtained from the National Health Library, maintained by the National Health Council, 370 Seventh Avenue, New York City.

State Public Health Administration

Abbott, S. W.: *The Past and Present Conditions of Public Hygiene and Medicine in the United States.* 1900.

This monograph, prepared for the Paris Exposition, contains a brief review of the then-existing public health agencies in the United States.

Chapin, C. V.: *A Report on State Public Health Work.* American Medical Association, Chicago. 1913.

This report is based upon a personal survey of state boards of health made by Dr. Chapin during 1912 and 1913. It is the most recent published analysis of state organization and function. The Office of Administrative Health Practice of the Public Health Service is assembling current data regarding state health administration which eventually should be of great value.

Kerr, J. W. and A. A. Moll: "Organization, Powers, and Duties of Health Authorities," *Public Health Bulletin* No. 54, Washington. 1912. 452 pp.

Contains a brief introduction giving an account of the growth of state and local organizations in the United States. The main body of the *Bulletin* is concerned with an analysis of the existing state and local laws relating to public health.

Mathews, John M.: *Principles of American State Administration.* Appleton, New York. 1917.

Chapter XIV (pp. 374-400) gives an account of the existing state public health law and administration.

The United States Public Health Service has made studies of several state and local health organizations. These have been published in the *Public Health Reports* as follows:

Kerr, J. W.: "Public Health Administration in New Mexico," *Reprint* No. 490 from *P. H. R.*, Nov. 15, 1918.

Fox, Carroll: "Public Health Administration in North Dakota," *Reprint* No. 315 from *P. H. R.*, Dec. 17, 1915.

Fox, Carroll: "Public Health Administration in Nevada," *Reprint* No. 317 from *P. H. R.*, Dec. 31, 1915.

Fox, Carroll: "Public Health Administration in Colorado," *Reprint* No. 383 from *P. H. R.*, Dec. 29, 1916.

Fox, Carroll: "Public Health Administration in Nebraska," *Reprint* No. 348 from *P. H. R.*, July 7, 1916.

Fox, Carroll: "Public Health Administration in Florida," *Reprint* No. 340 from *P. H. R.*, July 2, 1916.

Fox, Carroll: "Public Health Administration in Minnesota," *Reprint* No. 223 from *P. H. R.*, Oct. 2, 1914.

Fox, Carroll: "Public Health Administration in the State of Washington," *Reprint* No. 255 from *P. H. R.*, Feb. 5, 1915.

Clark, Taliaferro: "Public Health Administration in West Virginia," *Reprint* No. 252 from *P. H. R.*, Jan. 22, 1915.

Grubbs, S. B.: "Public Health Administration in Illinois," *Reprint* No. 275 from *P. H. R.*, May 21, 1915.

Fox, Carroll: "Public Health Administration in Maryland," *Reprint* No. 166 from *P. H. R.*, Jan. 30, 1914.

Wallace, Schuyler C.: *State Administrative Control over Cities.* This book, now in preparation, is to be published as one of the Columbia University Studies in History, Economics, and Public Law. It has a chapter devoted to the control by state health authorities over local agencies.

Whipple, G. C.: *State Sanitation* (3 vols.). Boston. 1917.

An historical account of public health administration with especial reference to Massachusetts.

Cities and Counties

There is no exhaustive history of local sanitary organization in the United States. The Public Health Service has published in the *Public Health Reports* surveys of the health organization in several cities. The Office of Administrative Health Practice of the Service has become the national depository of information on current local public health administration.

American Child Health Association: *A Health Survey of Eighty-Six Cities.* New York. 1925.

American Public Health Association: "Report of the Committee on Municipal Health Department Practice," *Public Health Bulletin* No. 136, Washington. 1923.

United States Public Health Service: "Municipal Health Department Practice for the Year 1923, Based upon Surveys of the 100 Largest Cities in the United States," *Public Health Bulletin* No. 164, Washington. 1927. 782 pp.

These three reports are based upon thorough surveys of contemporary municipal public health organization. The last of the three is the most exhaustive work.

FEDERAL PUBLIC HEALTH POWER

(CHAPTERS II AND III)

Burdick, C. K.: "The Treaty making Power and the Control of International Relations," *Cornell Law Quarterly,* Vol. VII, pp. 34-41. 1921.

Corwin, Edward S.: *National Supremacy.* N. Y. 1913.

Two of the best studies of the federal treaty-making power.

Corwin, Edward S.: "The Spending Power of Congress—Apropos the Maternity Act," *Harvard Law Review,* Vol. XXXVI (March, 1923), pp. 548-582.

Analysis of the federal appropriation power.

Crandall, S. B.: *Treaties, Their Making and Enforcement.* N. Y. 1916 (2nd ed.).

Cushman, Robert E.: "Studies in the Police Power of the National Government," *Minnesota Law Review,* Vol. III, Nos. 5, 6, and 7 (April, May, and June, 1919); Vol. IV, Nos. 4 and 6 (March and May, 1920). 164 pp.

An acute analysis of the federal police power as exercised under the commerce, taxation, and postal clauses. An especially good analysis of the taxing power. Much relied upon in these two chapters.

Farrand, Max: *The Framing of the Constitution of the United States.* New Haven. 1913. 281 pp. Description of the background and purposes of the Constitutional Convention of 1787.

The Federalist (Ford edition). New York. 1898. 793 pp. Classic statement of the theory of the federal arrangements in the national Constitution.

Goodnow, Frank J.: "Constitutional Foundations of Federal Health Functions," *P. H. R.,* Vol. 34 (October 3, 1919), pp. 2181-2188. Published also in *American Journal of Public Health,* Aug., 1919.

Kerr, J. W.: "Legal Authority and Limitations Governing Federal Public Health Activities," *P. H. R.,* Vol. 40 (Aug. 14, 1925), *Reprint* 1035.

General, popular exposition of national health authority by an experienced officer of the Public Health Service.

McLaughlin, Allan J.: "Proper Relation of Federal and State Governments in Public Health Work," *P. H. R.,* Vol. 34, (Sept. 26, 1919), pp. 2143-2148. Also published in the *American Journal of Public Health,* August, 1919.

Address by an assistant surgeon general of the Public Health

Service showing how little the efficiency and progress of federal health administration in that Service, at least, depend upon legal powers and how much upon properly-established co-operative relations between national, state, and local agencies.

Pierce, Franklin: *Federal Usurpation.* New York. 1908. 437 pp.
An analysis of the centralizing tendency of the national government, from the viewpoint of a theoretical advocate of decentralization.

Rogers, Lindsay: "The Postal Power of Congress," *Johns Hopkins Studies in Historical and Political Science,* Series XXXIV, No. 2. Baltimore. 1916. 189 pp.
Study of the legal aspects of the federal postal power.

Thompson, Walter: *Federal Centralization.* New York. 1923. 399 pp.
A complete and objective analysis of the expanding scope of national activity. Contains an analysis of the legal basis for the federal police power and a review of leading cases. On the whole the most valuable legal study of the federal problem from the viewpoint of centralization *vs.* decentralization.

Tobey, James A.: *Public Health Law.* Baltimore. 1926. 304 pp.
A discussion of the whole body of American public health law with a chapter on federal health powers.

Walz, Wm. E.: "Federal Regulation of Quarantine," IV *Michigan Law Review* No. 3 (January, 1906).
Good statement of the federal constitutional power in relation to human quarantine.

West, Henry Litchfield: *Federal Power: Its Growth and Necessity.* New York. 1918. 216 pp.
Covers the same ground as volumes above, but from a viewpoint much more sympathetic with the centralizing trend.

Bibliography of Cases Cited

Bailey *v.* Drexel Furniture Co., 1922. 259 U. S. 20.
Declaring unconstitutional a federal tax upon profits of child labor employers.

Baker *v.* Portland, 1879. 5 Sawyer 566.
Upholding the treaty power against state police power legislation.

Brolan *v.* U. S., 1915. 236 U. S. 216.
Upholding federal pursuit of opium smugglers within the U. S.

Brown *v.* Maryland, 1827. 12 Wheaton 419.
Statement of original-package doctrine.

Buttfield *v.* Stranahan, 1904. 192 U. S. 470.
Upholding federal law which prohibited importation of tea not of a certain grade.

Champion *v.* Ames, 1903. 188 U. S. 321.
The Lottery case in which federal prohibition of the transportation of lottery tickets was upheld and federal police power maintained over articles not harmful in themselves.

Compagnie Française *v.* La. State Board of Health, 1901. 186 U. S. 380.
Upholding state quarantine regulations which prohibit importation of persons into districts under state quarantine.

Gibbons *v.* Ogden, 1824. 9 Wheaton 187.
Marshall's doctrine of implied powers.

Hammer *v.* Dagenhart, 1918. 247 U. S. 251.
Declaring unconstitutional the prohibition of interstate commerce to articles made under child labor conditions.

Head Money cases, 1884. 112 U. S. 580.
Upholding federal tax upon immigrants under commerce power.

Hill *v.* Wallace, 1922. 259 U. S. 44.
Declaring unconstitutional a federal tax upon grain futures enacted with the purpose of regulation.

Hipolite Egg Co. *v.* U. S., 1911. 220 U. S. 45.
Dictum extending federal police control over food and drugs beyond the original package.

Hoke *v.* U. S., 1913. 227 U. S. 308.
Upholding Mann White Slave Act which prohibits interstate transportation of women for immoral purposes.

Kagama Case, 1886. 118 U. S. 375.
Defining federal power over Indian tribes.

Leach *v.* Carlisle, 1922. 258 U. S. 138.
Sustaining a postal fraud order against patent medicines.

Lewis Publishing Co. *v.* Morgan, 1913. 229 U. S. 288.
Sustaining the federal newspaper publicity law.

Liquor cases:
License cases, 1847. 5 Howard 504.
Leisy *v.* Harden, 1890. 135 U. S. 100.
Bowman *v.* Chicago N. W. Ry. Co., 1888. 125 U. S. 465.
In re Rahrer, 1891. 140 U. S. 545.
Rhodes *v.* Iowa, 1898. 170 U. S. 412.
Clark Distilling Co. *v.* W. Md. Ry. Co., 1917. 242 U. S. 311.

Adams Express Co. *v.* Ky., 1915. 238 U. S. 190.
U. S. *v.* Hill, 1919. 248 U. S. 420.
The cases dealing with the state and federal statutes regulating intoxicating liquor.
McCray *v.* U. S., 1904. 195 U. S. 27.
Upholding a prohibitive tax on yellow oleomargarine.
McCulloch *v.* Maryland, 1819. 4 Wheaton 473.
Famous definition of implied powers.
McDermott *v.* Wisconsin, 1912. 228 U. S. 115.
Prohibiting state food and drug regulations contrary to federal food and drug regulation and asserting national police-commerce power over hurtful commodities.
McKinley *v.* U. S., 1919. 249 U. S. 397.
Sustaining federal police legislation protecting military camps under the war power.
Massachusetts *v.* Mellon, 1923. 262 U. S. 447.
Upholding federal Maternity and Infancy Act which applied federal-aid principle.
Missouri *v.* Holland, 1920. 252 U. S. 416.
Upholding the federal migratory-bird treaty.
Morgan S. S. Co. *v.* La. Bd. Health, 1885. 118 U. S. 455.
Upholding state tax as part of quarantine regulations and as not encroaching on federal tax or commerce powers.
Pace *v.* Burgess, 1875. 92 U. S. 372.
Upholding federal stamp tax on exports.
The Abby Dodge, 1912. 223 U. S. 166.
Upholding law which forbids importation of deep-sea sponges.
U. S. *v.* Doremus, 1919. 249 U. S. 86.
Upholding a registry tax upon dealers in narcotic drugs, with elaborate incidental requirements for those taxed.
U. S. *v.* Johnson, 1911. 221 U. S. 488.
Limiting Food and Drugs Act so as to exclude punishment for fraud in claiming curative effects for medicines.
U. S. *v.* Linden, 1925. 268 U. S. 5.
Narrowing the regulatory uses of the taxation power in the Harrison Drug Act.
Veazie Bank *v.* Fenno, 1869. 8 Wallace 533.
Upholding federal prohibitive tax upon state bank notes as legitimate exercise of federal currency power.
Weber *v.* Freed, 1915. 239 U. S. 325.
Upholding federal prohibition of importation of prize-fight films.

Weeks *v.* U. S., 1918. 245 U. S. 618.
Sustaining administrative inspection under the Food and Drugs Act.

Worcester *v.* Georgia, 1832. 6 Peters 515.
Defining federal power over Indian tribes.

NATIONAL MEDICAL CARE OF THE MERCHANT SEAMEN

(CHAPTER IV)

Annual Report of the Supervising Surgeon of the Marine Hospital Service of the United States (1872, 1873, 1874).

Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States (1875 to 1901, inclusive).

Annual Report of the Surgeon-General of the Public Health and Marine Hospital Service of the United States (1902 to 1911, inclusive).

Annual Report of the Surgeon-General of the Public Health Service of the United States (1912 to 1926, inclusive).
These reports form continuous annual reviews of the work of the Bureau of the Marine Hospital Service (the Public Health Service from 1912 to the present). Each one covers the twelve months' period ending with June 30 of the year indicated in the title of the report. They are the best source of information on the history of seamen relief since 1871 as well as other activities of the Service. *The First Annual Report of the Supervising Surgeon of the Marine Hospital Service,* issued in 1872, and written by Supervising Surgeon, John M. Woodworth, contains a useful historical sketch of Marine Hospital Service operations and organization before 1872.

Congressional Globe, 41 Cong., 2 Sess. (Feb. 21, 1870), pp. 1449-1453; *Congressional Record,* 48 Cong., 1 Sess. (April 26, 1884), pp. 3427-3452.
The debates over reorganization of the Marine Hospital Service are to be found here.

Garrison, Fielding H.: *John Shaw Billings, A Memoir.* Putnams, New York. 1915.
This contains brief accounts of the services of Dr. Billings in connection with the Marine Hospital Service, the National

Board of Health, and his other activities during the period 1870-1884.

Memorial of the Seamen of New York, January 28, 1822. Pamphlet, published privately.

This is a six page circular-petition to Congress by a group of merchant seamen in the port of New York complaining of the deficiencies of marine hospital administration.

Report of the Secretary of the Treasury on the State of the Finances (1790-1871).

These annual reports for the years preceding 1871 contain occasional references to the Marine Hospital Service.

Ruschenburger, W. S. E.: *Remarks on the Condition of the Marine Hospital Fund of the United States.* 1848.

This is a twenty-four page pamphlet by a surgeon of the Navy, containing a criticism of the administration of the marine hospitals before 1870.

Schmeckebier, Laurence F.: *The Public Health Service: Service Monographs of the United States Government* No. 10. Institute for Government Research, Baltimore. 1923. 298 pp.

A summary description of the evolution and organization of the Public Health Service; contains a compilation of the statutes dealing with the Service—a useful manual.

Evolution and Organization of the Public Health Service

Anon.: *The Relations of the Marine Hospital Service of the United States to Commerce, the Public, and the Medical Profession.* San Francisco. 1881.

Kerr, J. W.: "Federal Public Health Administration, its Development and Present Status in the United States," *Reprint* No. 112 from *P. H. R.,* Jan 17, 1913. 12 pp.

P. H. S.: "The Public Health and Marine Hospital Service of the United States," *Public Health Bulletin* No. 13, Washington. 1904. Revised and issued as *P. H. Bulletin* No. 20 in 1907.

P. H. S.: "The United States Public Health Service, Its Evolution and Organization," *P. H. R.,* May 27, 1921. Also *Reprint* 661.

P. H. S.: "Work of the United States Public Health Service," *P. H. R.,* Vol. 41 (Dec. 10, 1926), pp. 2825-2852.

Trask, J W.: "The Federal Public Health Service," *Case and Comment,* Vol. XX (Aug., 1913), pp. 153-157.

Warren, B. S.: "Coördination and Expansion of Federal Health Activities," *Reprint* No. 575 from *P. H. R.,* Dec. 5, 1919.

Wyman, Walter: "Public Health Service in the United States," *Cleveland Journal of Medicine*, Feb., 1897. 20 pp.

Ibid.: "Public Health and Marine Hospital Service of the United States," *Public Health Bulletin* No. 13, Washington. 1904. Revised and issued as *Bulletin* No. 20, 1907.

These addresses, reprints, and descriptions by officers of the Service contain in outline the history of its activities and interests at various periods. There is much repetition of the same material and none gives a thorough and exhaustive account of the history of the Service.

MEDICAL CARE AND PREVENTIVE MEDICINE IN THE ARMY AND NAVY

(CHAPTERS V AND VI)

The Army

Annual Report of the Surgeon-General, U. S. Army to the Secretary of War (1826 to 1924 incl.). Issued as part of War Department Annual Reports, for the fiscal year ending June 30. Also issued separately since 1912.

Contains a report of the operations of the Army Medical Department.

Brown, Harvey E.: *Medical Department of Army from 1775 to 1873.* Washington. 1873.

Garrison, M.D., Fielding H.: *John Shaw Billings, A Memoir.* Putnams, New York. 1915. 432 pp.

Owen, Col. Wm. O., U. S. A. (editor): *The Medical Department of the U. S. Army During the Period of the Revolution 1776-1786.* New York. 1920.

Pilcher, James E., M.D.: *The Surgeon-Generals of the Army of the U. S. of America.* 1905.

Reed, Walter, Victor C. Vaughan, and Edward O. Shakespeare: *Origin and Spread of Typhoid Fever in U. S. Military Camps During the Spanish War of 1898.* Washington. 1900.

George M. Sternberg, Biography, by his wife. American Medical Association. Chicago. 1920.

The Medical Department of the United States Army in the World War Vol. I: The Surgeon-General's Office. Prepared under the direction of the Surgeon-General of the Army. Washington. 1923. 1389 pp.

The Navy

Annual Report of the Surgeon-General, U. S. Army (for the years ending June 30, 1900-1926. Issued as part of the Annual Reports of the Navy Department for the fiscal year).

The reports for 1917-1921 are especially useful.

Braisted, Wm. C.: *The Navy as a Special Field for Medical Work.* Washington. 1917.

The Hospital Corps of the Navy (pamphlet). Washington. 1917.

Venereal disease control

For references on venereal disease administration see *post,* Chapter XIV.

MEDICAL CARE OF THE WORLD WAR VETERANS

(chapters VII and VIII)

Congressional Documents

U. S. Congress. Hospital and Sanatorium for Treatment of Soldiers and Sailors by Public Health Service. Letter from the Secretary of the Treasury . . . Sept. 20, 1918 (65 Cong., 2 Sess., House Doc. 1294), 7 pp.

U. S. Congress. House Committee on Public Buildings and Grounds. Hospitals and Sanatoria. Hearings on *H. R.* 12917 (65 Cong., 2 Sess.), Sept. 18, 1918. Committee on Public Buildings and Grounds, Series 13. Washington. 1918. 24 pp.

U. S. Congress. House. Report (to accompany H. R 12917 providing sanatorium for treatment of discharged soldiers and sailors), Dec. 20, 1918 (65 Cong., 2 Sess., House Rept. 799). 5 pp.

These documents give the history of the first steps toward hospital construction during and immediately after the war and include the account of the first, or Dawson Springs, bill which in the Senate was consolidated with the general hospital bill.

U. S. Congress. House. Committee on Public Buildings and Grounds. Hospitals. Hearings on H. R. 13026 to provide hospital and sanatorium facilities for discharged sick and dis-

abled soldiers and sailors, Sept. 26, 1918, Oct. 8, 1918 (Serial No. 14), 53 pp.; Dec. 3 and 6, 1918 (Serial No. 14), 29 pp.; Dec. 9, 1918 (Serial No 16), 29 pp. (65 Cong., 3 Sess.). Washington. 1919.

U. S. Congress. Senate. Committee on Public Buildings and Grounds. Military hospitals. Hearings pursuant to Sen. Res. 286 for investigation of selection and acquisition of sites for Government hospitals, Jan. 15-Feb. 11, 1919 (65 Cong., 3 Sess.), Washington. 1919. 1265 pp., 4 parts.

U. S. Congress. Senate. Sites for military hospitals. Report of Senate subcommittee June 2, 1919 (66 Cong., 1 Sess.). Washington. 11 pp.

U. S. Congress. House. Report (to accompany H. R. 13026 to provide hospital and sanatorium facilities. . . .), Dec. 21, 1918 (65 Cong., 3 Sess., House Report 879). 4 pp. and minority report, 27 pp.

U. S. Congress. Senate. Report (to accompany H. R. 13026 to provide hospital and sanatorium facilities. . . .), Feb. 13, 1919 (65 Cong., 3 Sess., Senate Report 729). 2 pp.

These documents give the history of the general hospital construction bill which became law on March 4, 1919 (H. R. 13026). The Senate hearings (noted above) were most exhaustive and contain the basis for the Act as later adopted.

U. S. Congress. Treasury Department. Additional hospital facilities for discharged soldiers, sailors, and marines, and Army and Navy nurses . . . draft of a bill . . . together with statement of the needs for the enactment of such legislation by the Surgeon-General of the Public Health Service, Washington. 1919 (66 Cong., 2 Sess., House Doc. 481). 54 pp.

This document contains the permanent plan presented by the administrative experts for veteran hospitalization at an estimated cost of eighty-five million dollars. It was rejected by Congress. The document includes a reprint of House Report 1294, submitted Sept., 1918, and noted above.

U. S. Congress. House. Hospitals for Bureau of War Risk Insurance. Report (to accompany H. R. 14315) June 3, 1920 (66 Cong., 2 Sess., House Report 1098). 3 pp.

U. S. Congress. House. Hospitals for Bureau of War Risk Insurance. Report (to accompany H. R. 15894), Jan. 27, 1921 (66 Cong., 3 Sess., House Report 1250 and Senate Report 828). 3 pp.

These reports indicate the changing attitude of Congress toward permanent hospitalization. The reports in the 3rd ses-

sion of the 66th Congress (March, 1921) led to the adoption of the first Langley Act appropriating 18.6 million dollars for veterans' hospitals. For debate on this bill (H. R. 15894) see *Congressional Record,* 4370-4373 (March 3, 1921).

The Veterans' Bureau Organization

U. S. Congress. House. Bureau of Veteran Reëstablishment. Hearing before the Committee on Interstate and Foreign Commerce on H. R. 14961, Jan. 7, 1921 (66 Cong., 3 Sess.). Washington. 1921. 112 pp.

Hearing on an early group of bills to transfer or consolidate the veteran bureaus. Indicates an active leadership by the American Legion in favor of these proposals.

U. S. Congress. Senate. Committee on Education and Labor. Department of Social Welfare. Hearing on S. 408, April 21, 1921 (67 Cong., 1 Sess.). Washington. 1921. 22 pp.

U. S. Congress. Joint Committees on Education. Department of Public Welfare. Hearings on S. 1607 and H. R. 5837, May 11, 12, 18, and 20, 1921 (67 Cong., 1 Sess.). Washington. 1921. 177 pp.

These hearings indicate the interest of General Sawyer in the consolidation of the veteran bureaus as one element in a general reorganization program. See also an earlier plan (S. 4542) introduced by Senator McCormick Dec. 7, 1920, to create a dept. of public works and dept. of public welfare.

U. S. Congress. House. Subcommittee of the Committee on Interstate and Foreign Commerce. Consolidation of Government Agencies for the Benefit of Disabled Ex-service Men. Hearings on H. R. 3, April 29, 30, May 2, and 4, 1921 (67 Cong., 1 Sess.), Washington. 1921. 2 parts, 239 pp.

These hearings were on the Sweet bill creating the Veterans' Bureau (bill was later numbered H. R. 6611). The first part contains reprint of the hearings before the Dawes Commission and that Commission's report.—pp. 41 to 130. The hearings are very valuable for an understanding of the Sweet bill and the reorganization under it. See also Senate report 231 (67 Cong.. 1 Sess.), July 20, 1921, to accompany H. R. 6611 to establish the Veterans' Bureau, 23 pp.; and simliarly House Report No. 104, May 27, 1921, to accompany H. R. 6611, 11 pp.

The Second Langley Act

U. S. Congress. House. Committee on Public Buildings and Grounds. Hearings on various bills providing for additional hospital facilities, 67 Cong., 1 and 2 Sess., Washington. 1921 and 1922. Committee Series No. 1 on H. R. 5764; No. 9 on H. R. 8791, Jan. 11, 1922, 17 pp.; No. 10 on same bill, Jan. 14, 1922, 24 pp.; No. 14, same bill, Feb. 8, 15 pp.; No. 15 Feb. 17; No. 16, March 9, 10, same bill; and Nos. 17, 18 on H. R. 10864, March 20, May 10. These hearings were on bills eventuating in the Second Langley Act. They contain Forbes's testimony as to the wisdom of turning over control of construction and contracts to the Veterans' Bureau directly. See esp. No. 14. These hearings also contain criticisms of the White Committee for delay in construction under the First Langley Act.

Veterans' Bureau Investigation

U. S. Congress. Senate. Investigation of United States Veterans' Bureau. Senate Report No. 103, Parts 1, 2, 3. Preliminary Report Jan. 28, 1924, 3 pp.; Second Preliminary Report Feb. 7, 1924, 75 pp.; Third Preliminary Report, June 6, 1924, 38 pp.

The second preliminary report contains General O'Ryan's summary of the testimony at the hearings and his recommendations for new legislation. The third report by Senator Walsh contains a valuable review of the hospital construction problem.

U. S. Congress. Senate. Select Committee on Investigation of Veterans' Bureau. Investigation of Veterans' Bureau. Hearings Oct. 22-Nov. 7, Nov. 12-Dec. 5, 1923 (67 Cong., 4 Sess.). Washington. 1923. 2 vols., 1791 pp.

Contains the mass of testimony at the hearings bearing upon the waste, corruption, and fraud of the Forbes régime.

U. S. Congress. House. World War Veterans' Legislation Committee. World War Veterans' Legislation. Hearings on proposed legislation as recommended by the Director of the U. S. Veterans' Bureau and others, Feb. 20-March 31, 1924 (68 Cong., 1 Sess.). Washington. 1924. 2 parts, 678 pp.

These hearings were on bills eventually consolidated into S. 2258 adopted in June, 1924, which codified and liberalized many features of the veterans' legislation and carried out the

recommendations initiated by the Senate Investigation Committee with the coöperation of Director Hines of the Veterans' Bureau. See also Senate Report 397 (68 Cong., 1 Sess.), April 10, 1924, on S. 2256, and House Report No. 763 on same bill, May 15, 1924. 15 pp.

U. S. Congress. House. World War Veterans' Legislation Committee. World War Veterans' Legislation. Hearings on proposed legislation, H. R. 4744 (69 Cong., 1 Sess.), Jan. 6, 1926. Washington. 1926. Part 1, 534 pp.

Departmental Documents

Annual Report of the Director United States Veterans' Bureau, 1922. Washington. 1922. 653 pp.

Ibid., 1923. Washington. 1923. 1064 pp.

Ibid., 1924. Washington. 1924. 673 pp.

The first annual report is that of the Forbes régime; the second and third are of the Hines administration. All contain statistical material with a brief preliminary statement of policy.

Annual Report of the Surgeon-General of the Public Health Service (for years ending June 30, 1919, 1920, 1921, 1922).

Contain accounts of the administration of veteran medical and hospital relief until the absorption of these veteran activities in 1921 and 1922 by the Veterans' Bureau.

Third Annual Report of the Federal Board for Vocational Education, 1919. Washington. 1919. 256 pp. vol. 1.

Ibid., Fourth Annual Report, 1920. 542 pp.

Ibid., Fifth Annual Report, 1921. 462 pp.

These contain an account of the administration of the Vocational Rehabilitation Act until its administration was absorbed by the Veterans' Bureau in 1921.

Miscellaneous

Cumming, Hugh S.: "The Work of the Public Health Service in Care of Disabled Veterans of the World War," *Reprint* No. 682 from *P. H. R.,* Vol. 36, No. 32, Washington. 1921. 12 pp.

Contains a description by the present Surgeon-General of Service activities in veterans' administration up to the time of the creation of the Veterans' Bureau in 1921.

Holt, W. Stull: *The Federal Board for Vocational Education: Service Monograph of the U. S. Government No. 6.* Institute

for Government Research, Appleton, New York. 1922. 71 pp.
Pages 6-11 give a brief account of the veteran rehabilitation work of the Federal Board.

Merz, Charles: "The Betrayal of our War Veterans," *Century Magazine,* Vol. 108 (August, 1924), pp. 435-441.

Schmeckebier, Laurence F.: *The Public Health Service.* 1923.
Pages 55-75 and 238-242 contain brief accounts of the veteran activities of the Service.

Sweet, Hon. Burton E.: Address in the House of Representatives, Sept. 19, 1922, *Congressional Record,* 67 Cong., 2 Sess., pp. 14237-14250.
Gives an account of the veterans' legislation up to that date.

NATIONAL MEDICAL CARE OF THE INDIANS

(CHAPTER IX)

Annual Report of the Board of Indian Commissioners to the Secretary of the Interior (1890-1926 inclusive).
Contained in *Annual Reports of the Department of the Interior,* since 1913. Issued previously as separate volumes. Each report is in the nature of a comment on existing conditions in the Indian Service determined by annual inspections of the commissioners.

Annual Report of the Commissioner of Indian Affairs to the Secretary of the Interior (1906-1926, inclusive).
These reports are issued separately and also are to be found in the second volume of the *Annual Reports of the Department of the Interior.* The commissioner's report contains each year a summary of Indian health conditions and methods of Indian health administration.

Contagious and Infectious Diseases Among the Indians. A Report by the Public Health Service of Contagious and Infectious Diseases Among the Indians of the United States. Senate Document 1038, 62 Cong., 3 Sess., 1913. Serial No. 6365.
An eighty-five page illustrated document containing an authoritative statement of the health problems among the Indians with recommendations for the improvement of the Indian health service.

Fleming, Henry C., M. D.: "Medical Observations on the Zuñi Indians," *Contributions from the Museum of the American*

Indian Heye Foundation, Vol. VII, No. 2, New York. 1924. 47 pp.

A survey of the physical and health conditions of an Indian tribe. No statistical or thorough study of disease conditions was made; it was rather a physiological investigation.

Hoffman, Frederick L.: "Medical Problems of our Indian Population," *Bulletin No. 5, Eastern Assn. on Indian Affairs, Inc.* 1925. 8 pp.

The most recent of several articles by Dr. Hoffman, Consulting Statistician of the Prudential Insurance Co., all of which are severely critical of the Indian Office health administration.

Indians of the United States. Hearings before the House Committee on Indian Affairs, 66th Congress. 1919. 3 Vols.

Volume I contains hearings held in Washington during the first session of the 66th Congress. Especially valuable are pp. 8 to 36, which give a history of the Indian Service, and pp. 284-289, which contain an outline of the medical service of the Indian Bureau. Volume III contains hearings held in the field during the second session of the 66th Congress. It contains many interesting comments on the field administration of the Indian Bureau.

Koenig, Margaret W., M.D.: *Tuberculosis Among the Nebraska Winnebago.* Published by the Nebraska Historical Society, Lincoln. 1921. 78 pp.

An excellent social-health study of several Indian villages on reservations.

Lindquist, G. E. E. (ed.): *The Red Man in the United States.* New York. 1923. 447 pp.

One of the most recent general surveys of the Indians. Contains much descriptive material regarding health and home conditions. Does not add anything in these respects, however, to the more specialized Public Health Service survey of 1912.

Murphy, J. A., M.D.: "Health Problems of the Indians," *Annals of the American Academy of Social and Political Science* (March, 1911), Vol. XXXVII, No. 2, pp. 103-109.

A statement of the Indian health conditions by a former Medical Supervisor of the Indian Bureau.

Office of Indian Affairs: Mimeographed and printed bulletins. See esp. *Bulletins No. 11* (1923), and No. 12 (1926) entitled

"The American Indian and Government Indian Administration." 17 pp.

Brief, factual material on Indian administration and Indian life.

The Indian Problem. Resolutions of the Committee of One Hundred appointed by the Secretary of the Interior and a Review of the Indian Problem by Joseph E. Otis, a Member of the Committee (House Doc. 149, 68 Cong., 1 Sess.). Washington. 1924. 49 pp.

A recent review of the Indian problem. The bulk of this material, however, was furnished by the Secretary of the Board of Indian Commissioners, Mr. Malcolm McDowell, and has appeared in the annual reports of that Board for previous years.

The Indian Problem. Comments on the Resolutions of the Advisory Committee on Indian Affairs by Hubert Work, Secretary of the Interior. Washington. June, 1924. 16 pp.

NATIONAL MEDICAL CARE OF TERRITORIALS AND OTHER WARDS

(CHAPTER X)

HAWAII

Annual Report of the Governor of Hawaii to the Secretary of the Interior (in *Annual Administrative Reports of the Department of the Interior.* 2 vols. 1900-1924, inclusive). Washington.

Contains report of the board of health.

PORTO RICO AND PHILIPPINES

Annual Report of the Governor of the Philippines (1906-1924, inclusive).

Contains reports on health activity.

Annual Report of the Governor of Porto Rico (1900-1924, inclusive).

Contains reports on health activity.

Alaska

Report of the Governor of Alaska to the Secretary of the Interior (1918-1924). Also to be found in *Annual Reports of the Department of the Interior,* Vol. II.

Work of the Bureau of Education for the Natives of Alaska. 1907-1918. Bulletin No. 40, Department of the Interior, Bureau of Education. 1919. 77 pp.

Contains descriptive account of the health and other work among the natives.

"Crown Colonies"—Occupations

American Samoa. Washington. 1916. A general report by the governor containing a description of the island and its government.

Annual Report of the Health Department of the Panama Canal Zone (1918-1924). Chief of Office, The Panama Canal, Washington.

Statistical record of each year's activities. Published at the end of the calendar year.

Annual Report of the Navy Department (1918-1924).

Contains a short review of administration in Samoa, Guam, Virgin Islands, Haiti, and the Dominican Republic.

Inquiry into Occupation and Administration of Haiti and the Dominican Republic. Senate Report 794 (67 Cong., 2 Sess.). 37 pp.

This contains extracts and a summary of hearings before a special Senate Committee on the administration of affairs in these two republics. There is little material on matters of health.

Morrow, Jay J., Col. U. S. Army retired: *The Maintenance and Operation of the Panama Canal.* Mount Hope, Canal Zone. 1923. 44 pp.

Good general description of the administration of the Canal government.

The Island of Guam. Washington. 1912. Descriptive pamphlet of the island and its government.

Miscellaneous

The annual reports of the particular departments and bureaus contain general information regarding health administration in Washington, D. C., the federal prisons, national parks, etc.

NATIONAL QUARANTINE AGAINST EPIDEMIC DISEASES

(CHAPTER XI)

EVOLUTION AND ORGANIZATION OF NATIONAL QUARANTINE

Allen, Wm. H.: "The Rise of the National Board of Health," *Annals of the American Academy of Political and Social Science,* Vol. XV (1900), pp. 51-68.

This article contains a good legislative history of federal quarantine from the beginning of the national government down to the law of 1879.

Annual Report of the National Board of Health (1879, 1880, 1881, 1882, 1883, 1885).

Detailed record of National Board activities.

Annual Report of the Surgeon-General of the Public Health Service (formerly Marine Hospital Service, Marine Hospital and Public Health Service—1871-1926).

These reports during the earlier years are largely concerned with quarantine activities; they contain the annual record of Service quarantine activities from their beginning to the present time.

Billings, J. S.: "The National Board of Health and National Quarantine," *Transactions of the American Medical Association,* Vol. XXXI (1880), pp. 448-459.

Record of the earlier activities of the National Board.

Interstate Quarantine Regulations of the United States. Revised edition, May, 1921. Washington. 1921. 40 pp.

Maxey, Edwin: "Federal Quarantine Law," *Political Science Quarterly,* Vol. XXIII (1908), pp. 617-636.

Gives a rather brief account of national quarantine legislation.

Quarantine Laws and Regulations of the United States. Revised edition, June, 1920. 73 pp.

Contains quarantine laws as well as text of regulations.

"The Control of Communicable Diseases," Report of the American Public Health Association Committee on Standard Regulations (appointed in October, 1916). *Reprint* No. 436 from *P. H. R.,* Oct. 12, 1917, pp. 1706-1733. Washington. 1918.

Convenient description of communicable diseases and standard sanitary and quarantine measures applicable to each.

Wyman, Walter: *The Present Organization and Work for the Protection of Health in the United States* (pamphlet).

International Quarantine Activities

Cumming, Hugh S.: "The International Sanitary Conference," *American Journal of Public Health,* Vol. XVI (Oct., 1926), pp. 975-980. *Ibid.,* "International Sanitary Conference Advances," *Nation's Health,* Vol. VIII (Sept., 1926), p. 9.

An account of the Paris sanitary conference of 1926 by the Surgeon-General of the Public Health Service who served as the head of the American delegation.

Hampton, Brock C.: "International Health Organizations," *P. H. R.,* Vol. 40 (Aug. 21, 1925), pp. 1719-1761.

This is the most complete and detailed account of international health conferences and organization. Deals with Pan-American and European organization.

Public Health Reports contain frequent articles concerning Pan-American and European conferences. See, for instance, "Pan-American Conference of Directors of Public Health," *P. H. R.,* Vol. 41 (Nov. 12, 1926), pp. 2585-2592; "The Pan-American Sanitary Code," Vol. 40 (March 13, 1925), pp. 483-502. This last article contains the complete text of the 1925 Pan-American sanitary treaty. The *Reports* contain frequent extracts from the publications of the Health Section of the League of Nations.

Snow, W. F.: "League's Health Experts Have Aided Millions of Human Sufferers, . . ." *League of Nations News,* Vol. III (May, 1926), pp. 7-9.

This periodical publication issued by the League of Nations Non-partisan Association contains frequent articles, mainly of a popular, descriptive nature, on the health work of the League.

Woolf, L. S.: *International Government.* New York. 1916. 410 pp.

On pages 221-242 will be found a description of the European international sanitary activities before the World War.

NATIONAL CONTROL OF DISEASES IN COMMERCE

(CHAPTER XII)

IMMIGRANTS

Annual Report of the Surgeon-General of the Public Health Service (1890-1924).

These reports contain a running account of the immigrant inspection activities of the Service. *The Annual Report of the Commissioner of Immigration* contains practically no information on this aspect of their work.

Mullan, E. H.: "Mental Examination of Immigrants," *Reprint* No. 398 from *P. H. R.*, May 18, 1917, pp. 733-746.

Gives a detailed description of the examination process.

Physical Examination of Immigrants; Contagious Diseases among Immigrants. Hearings before the Committee on Immigration and Naturalization, House of Representatives, Jan. 11 and Feb. 9, 1921 (66 Cong., 3 Sess.), 16 pp. 48 pp.

These hearings deal mainly with the question of adequacy of examinations for detecting the venereal diseases, but they contain also full statements by Surgeon-General Cumming and Dr. Creel (In charge of the immigration inspection work) regarding methods and efficacy of the whole examination system.

Smith, D. H. and H. G. Herring: *The Bureau of Immigration.* Institute for Government Research monograph No. 30. 1924. 247 pp.

Gives text of immigration statutes.

LEPROSY

Annual Report of the Surgeon-General of the Public Health Service (1890-1926).

Contains account of the development of the Service leprosy activities.

Denney, O. E.: "The Leprosy Problem in the United States," *P. H. R.*, Vol. 41 (May 14, 1926), pp. 923-929.

Description of the evolution of national policy and the organization of the Carville leprosarium.

Interstate Water Supply

Cobb, J. O., C. L. Williams, H. P. Letton: "Drinking Water on Interstate Carriers," *Reprint* 368 from *P. H. R.*, Vol. 31 (Oct. 13, 1916), pp. 2845-2867.

Gorman, Arthur E.: "Supplying Drinking Water on Trains Operating in Interstate Traffic," *P. H. R.*, June 16, 1922, pp. 1458-1466.

Gorman, Arthur E. and Edmund C. Sullivan: "Sanitary Methods for Supplying Vessels with Drinking Water," *Reprint* 734 from *P. H. R.*, Vol. 37 (March 17, 1922), pp. 613-630.

These three articles are descriptive of the interstate water supply work carried on by the Public Health Service.

Report of Advisory Committee on Official Water Standards, *P. H. R.*, Vol. 40 (April 10, 1925), pp. 693-722.

Contains description of the regulation problem.

Standard Railway Sanitary Code. *Reprint* 604 from *P. H. R.*, Vol. 35 (July 23, 1920), pp. 1749-1761.

Sullivan, E. C.: "Safeguarding the Sanitary Quality of Drinking and Culinary Water Supplied on Interstate Carriers," *P. H. R.*, July 4, 1924, pp. 1620-1634.

Meat Inspection

Annual Report of the Chief of the Bureau of Animal Industry of the United States Department of Agriculture (1907-1921).

Main source of information on operations of the Meat Inspection Act.

Ditewig, George: "The Meat Inspection Service of the United States Department of Agriculture, *Yearbook U. S. Department of Agriculture.* 1916. pp. 77-97.

Excellent description of operations of the Act.

Houck, U. G.: *The Bureau of Animal Industry.* Washington 1924. 390 pp.

A popular account of the evolution and activities of the Bureau.

Regulations Governing the Meat Inspection of the United States Department of Agriculture. Washington. 1914. 97 pp.

Contains loose-leaf insertions of amendments to date. (1927).

Food and Drugs

Annual Report of the Chemist, United States Department of Agriculture (1907-1921).

See especially the report for the fiscal year ending 1917, pp. 12-20, which contains a review of the first decade of food and drugs enforcement; and for 1921, pp. 1-8, with a similar review for the years 1913-1921.

Rules and Regulations for the Enforcement of the Food and Drugs Act. Circular No. 21, Dept. of Agriculture. 7th revision, 1913.

Regulations for the Sale of Viruses, Serums, Toxins, and Analogous Products in the District of Columbia and in Interstate Traffic, Approved Feb. 12, 1912. Miscellaneous Publication, U. S. Public Health Service. Washington. 1919. 15 pp.

Regulations No. 35, Relating to the Importation, Manufacture of Opium or Coca Leaves . . . under the Act of December 17, 1914. Revised November, 1919. Washington. 1919. 78 pp.

The Bureau of Chemistry of the United States Department of Agriculture. U. S. Dept. of Agric., Department Circular 137. Washington. 1920.

A descriptive pamphlet for popular distribution. Gives organization and workings of Food and Drugs Division.

Yearbook of the Department of Agriculture (1907-1926).

These volumes contain articles occasionally relating to food and drugs enforcement as well as to meat inspection. Especially useful are those for the years 1907, 1908, 1911, 1912, 1913, 1914.

Shellfish and Stream Pollution

Frost, W. H.: "A Review of the Work of the United States Public Health Service in Investigations of Stream Pollution," *P. H. R.,* Vol. 41 (Jan. 15, 1926), pp. 75-85.

Contains a discussion of the growing importance of the problem and the development of interstate agreements.

Supplement to Public Health Reports No. 53 (Nov. 6, 1925): *Report of Committee on Sanitary Control of the Shellfish Industry in the United States.* 17 pp.

"Transactions of the 23rd (1925) Annual Conference of State and Territorial Health Officers with the U. S. Public Health Service," *Public Health Bulletin* No. 61. Washington. 1926. 125 pp.

Pages 76-90 of these Transactions contain an excellent discussion of stream pollution developments; pages 90-113 give an important record of action in relation to shellfish control. The Conference held in 1926 continued these discussions and

its *Transactions* should be consulted, when issued, for additional material.

VITAL STATISTICS, SCIENTIFIC INVESTIGATION, AND EDUCATION

(CHAPTER XIII)

Vital Statistics

Annual Report of the Director of the Census; Annual Report of the Surgeon-General of the Public Health Service (1900-1926).

These reports contain annual summaries of the development of vital statistics administration. In the reports of the Surgeon-General the material on vital statistics is treated under the heading: Division of Sanitary Reports and Statistics.

Billings, John H.: "The Registration of Vital Statistics in the United States," *National Board of Health Bulletin,* Vol. III, No. 33 (Feb. 11, 1882), pp. 295-296.

A valuable review of the vital statistics situation in 1880.

Davis, Wm. H.: "Necessity for Completing the Registration Areas by 1930," *American Journal of Public Health,* May, 1925, pp. 399-404.

Popular account of growth and present status of birth and death registration areas by the present Chief Statistician for Vital Statistics of the Census Bureau.

Dublin, Louis I: reprints of addresses on births, death and sickness registration, as follows. "The Improvement and Extension of the Registration Area," reprinted from *Qly. Pubs. of the Amer. Stat. Ass'n,* June, 1915. 5 pp.

"Vital Statistics in Relation to Life Insurance," paper read before Pan-American Scientific Congress. Washington, D. C., Dec. 30, 1915. 8 pp.

"The Reporting of Disease—The Next Step in Life Conservation," an address presented to the Assn. of Life Insurance Presidents, June 5, 1914. 15 pp.

"The Present Status of Birth Registration in American Cities and Its Relation to the Infant Mortality Rate," reprinted from *Qly. Pubs. of the Amer. Stat. Assn.,* March, 1917, pp. 533-547.

"Some Considerations in Vital Statistics Education" (with Edwin W. Kopf), reprinted from *Qly. Pubs. of the Amer. Stat. Assn.,* Sept., 1919. 11 pp.

These addresses and reprints deal for the most part with general considerations regarding vital statistics.

Fulton, John S. and John S. Fulton, Jr.: "Morbidity Registration in the United States," *Reprint* No. 323 from *P. H. R.*, Feb. 11, 1916, pp. 295-300.

A suggestion in favor of the formation of a provisional registration area for morbidity.

Hampton, Brock C.: "The Collection of Morbidity Data," *P. H. R.*, Vol. 38 (Nov. 30, 1923), pp. 2817-2830.

A review of the collection of morbidity statistics by the Service.

Kopf, Edwin W.: "Some Essentials of Sickness Statistics," Reprint from *Procs. Casualty, Actuarial and Statistical Society of America,* Vol. IV, Part I, No. 9, 1917, pp. 107-134.

Critical analysis of the possibilities of sickness statistics.

"The Division of Sanitary Reports and Statistics of the Bureau of the Public Health Service," *Reprint* No. 45 from *P. H. R.*, Vol. 30 (Nov. 5, 1915).

A description of the work of the Division.

Trask, John W.: "The Practising Physician and Public Health," *Reprint* No. 319 from *P. H. R.*, Jan. 14, 1916, pp. 47-59; "Public Health Administration," *Reprint* No. 109, *P. H. R.*, Jan. 3, 1913.

Trask, John W.: "Vital Statistics," Supplement No. 12 to *P. H. R.*, April 3, 1914 (2nd edition). Washington. 1914. 94 pp.

A general treatment of vital statistics administration with especial attention to development of morbidity statistics in the U. S.

Why Should Births and Deaths Be Registered? Issued by the American Medical Association. Chicago. 46 pp.

A propaganda pamphlet containing "A summary of the history and present condition of vital statistics laws, including the text of the Model Bill" for births and deaths. Does not include treatment of morbidity registration.

Wilbur, Cressy L.: *The Federal Registration Service of the United States: Its Development, Problems, and Defects.* Bureau of the Census, Dept. of Commerce. Washington. 1916. 86 pp.

This is an excellent description of the development and present procedure of the Bureau of the Census in collecting death and birth statistics. The pamphlet was prepared for the Second Pan-American Scientific Congress.

Scientific Investigation; Popular Health Education

There is a dearth of specialized accounts of the organization of scientific investigation and of popular health instruction in the federal government. The principal sources for the review given here are the annual reports of the departments and bureaus engaged in such activity.

Smith, Darrell, H.: *The Bureau of Education.* Johns Hopkins Press, Baltimore. 1923. 154 pp.

Tobey, James A: *The Children's Bureau.* Johns Hopkins Press, Baltimore. 1925. 60 pp.

Weber, Gustavus A.: *The Women's Bureau,* Johns Hopkins Press, Baltimore. 1923. 28 pp.

These are Service monographs issued by the Institute for Government Research. They give bare descriptions of the history, organization, and statutory basis of each bureau. They contain good bibliographies.

FEDERAL STIMULATION AND AID

(chapter xiv)

Conferences and Advisory Standards

Children's Year: a brief summary of work done. . . . Children's Bureau Publication No. 67. Washington. 1920.

Minimum Standards for Child Welfare, adopted by the Washington and Regional Conferences on Child Welfare, 1919. Conference Series No. 2, Bureau Pub. No. 62. Washington. 1919. 15 pp.

Rude, Anna E.: "The Results of Children's Year," reprinted from *Archives of Pediatrics,* December, 1919. 17 pp.

Standards of Child Welfare. Conference Series No. 1. Bureau Pub. No. 60. Washington. 1919.

These four publications tell the story of Children's Year.

Transactions of the Annual Conferences of State and Territorial Health Officers with the United States Public Health Service (1903-1926 inclusive).

These reports contain the record of the work of the annual conferences.

Comparative Scores

How to Fight Venereal Diseases in your City. A Program of Medical, Educational and Law Enforcement Measures. V. D. Pamphlet No. 48, issued by the Treasury Dept., U. S. Public Health Service.

The Percentage of Venereal Diseases among Approximately the Second Million Drafted Men—By Cities, V. D. Pamphlet No. 47, issued by the U. S. Public Health Service.

Relative Standing of 444 Cities in Respect to Measures in Force February 1, 1926, for Combating Venereal Diseases. V. D. Bulletin No. 57, issued by the U. S. P. H. S.

These three pamphlets contain the record of the attempt of the Health Service to give comparative score to cities on their venereal disease work.

Olesen, Robert: "How to Measure the Efficiency of Local Health Officers," *Reprint* No. 636 from *P. H. R.*, Jan. 14, 1921. 8 pp.

Contains a plan for scoring municipal departments.

Milk Control

Frank, Leslie C.: "The Standard Milk Control Program," *P. H. R.*, Vol. 41 (July 30, 1926), pp. 1583-1616.

Pages 1573-1582 of this same volume give the text of the program.

Transactions of the 23rd (1925) Annual Conference of the States and Territorial Health Officers with the Public Health Service. Washington. 1926.

Pages 25-34 give the discussion of this Conference regarding the standard program. The 1926 Conference discussed and adopted the program.

Rural Sanitation

Annual Report of the Surgeon-General of the Public Health Service. 1918, pp. 103-160; and for 1919, pp. 86-106.

General review of work in extra-cantonment areas.

Dublin, Louis I.: *County Health Organization in the United States.* (pamphlet). 1915. 14 pp.

Contains a summary of county health organization before the Public Health Service work began.

Lumsden, L. L.: "Coöperative Rural Health Work of the Public

Health Service in the Fiscal Year 1920," *P. H. R.*, Oct. 1. 1920, pp. 2329-2341.

Ibid., 1921, *P. H. R.*, Oct. 7, 1921, pp. 2472-2487.

Ibid., 1922, *P. H. R.*, Sept. 29, 1922, pp. 2351-2369.

Ibid., 1923, *P. H. R.*, Dec. 14, 1923, pp. 2929-2950.

Ibid., 1924, *P. H. R.*, Oct. 17, 1924, pp. 2607-2629.

Ibid., 1925, *P. H. R.*, Oct. 23, 1925, pp. 2253-2287.

Ibid., 1926, *P. H. R.*, Oct. 22, 1926, pp. 2381-2420.

Annual descriptions of work carried on by the Service in this field.

Lumsden, L. L.: "Extent of Rural Health Service in the United States 1921-1925," *P. H. R.*, May 8, 1925, pp. 930-941.

This contains a list of the counties with whole-time county health officers.

Ibid., 1922-1926, *P. H. R.*, May 7, 1926, pp. 870-881.

Ibid., 1924, *P. H. R.*, May 16, 1924, pp. 1127-1137.

Also for 1921, 1922, 1923 in *P. H. R.*, Nov. 18, 1921, July 21, 1922, and April 27, 1923, respectively.

See also annual list of whole-time county health officers appearing periodically in *Public Health Reports.*

Lumsden, L. L.: "Rural Sanitation," *Public Health Bulletin* No. 94. Washington. 1918. 336 pp.

This gives a complete account of the problem of rural sanitation and the method and results of the 1914-1917 surveys and studies. Contains history of surveys in each county.

Public Health Reports contain frequent articles by Service officers on results of rural sanitation in particular counties and experimental methods of county health work. See esp.: May 15, 1925, pp. 983-997; June 14, 1918, pp. 968-972; Oct. 1, 1920, pp. 2309-2328; Sept. 25, 1914, pp. 5-53.

Warren, Benjamin S., Asst. Surgeon-General, and Charles F. Bolduan, Chief, Educatl. Section of Public Health Service: "War Activities of the United States Public Health Service," *Reprint* 531 from *P. H. R.*, June 6, 1919, pp. 1243-1267.

Contains an analysis and review of work in the extra-cantonment zones.

Malaria and Other Demonstrations

Derivaux, R. C. et al.: "Malaria Control," *Public Health Bulletin* No. 88, Sept., 1917, 57 pp.

Von Ezdorf, R. H.: "Demonstrations in Malaria Control," *P. H. R.*, March 10, 1916, pp. 614-629.

These two articles describe the methods and results of the malaria demonstration work. See also annual reports of the Surgeon-General, 1913-1925.

Venereal Diseases

Army Appropriation Bill, 1919. Hearings before the Committee on Military Affairs, U. S. Senate (65 Cong., 2 Sess.), June 10, 15, 17, 18, 1918. 93 pp.

Pages 59-93 contain the hearings on the Chamberlain-Kahn bill.

Dietzler, Mary Macey: *Detention Houses and Reformatories as Protective Social Agencies in the Campaign of the United States Government Against Venereal Diseases.* Washington. 1922. 227 pp.

"A report on certain detention houses and reformatories that received assistance from the United States Government in caring for civilian persons whose detention, isolation, quarantine, or commitment was found necessary for the protection of the military and naval forces of the United States against veneral diseases." Contains a good historical account of the reformatory-fund appropriation as well as a detailed report of its administration and results.

Instructions to Medical Officers in Charge of State Control of Venereal Diseases, *Misc. Pub.* No. 19, *P. H. S.* 1918. 18 pp.

Contains instructions to "fifty-fifty" officers.

Manual for the Various Agents of the United States Interdepartmental Social Hygiene Board. 1920. 106 pp.

This volume served as a substitute for the first annual report of the Board. It contains a history of the passage of the Act, administration of the Board activities, text of the Act, rules and regulations passed by the Board and issued by the Secretary of the Treasury.

Moore, H. H.: "Four Million Dollars for the Fight Against Venereal Diseases," *Social Hygiene,* Vol. V, Jan., 1919, pp. 15-26.

Pierce, C. L.: "The Public Health Service Campaign against Venereal Diseases," *Social Hygiene,* Vol. V, Oct., 1919, pp. 415-439.

These two articles give a good account of the administration of the Chamberlain-Kahn Act.

Regulations governing allotment of funds for venereal disease prevention work, *Reprint* No 485 from *P. H. R.,* Sept. 13, 1918.

Ibid., as amended April 10, 1922, *P. H. R.*, May 12, 1922, pp. 1143-1146.

Report of the United States Interdepartmental Social Hygiene Board. 1920. 272 pp.

Contains a detailed review of the work of the Board for its first two years. Reprints much material of a documentary and other nature appearing in the *Manual for the Agents.*

Report of the United States Interdepartmental Social Hygiene Board, 1922. 49 pp.

This is the last report of the Board issued before it went out of active existence and contains a review of the three years' activities.

The Attack on Venereal Diseases, with special reference to the Program of the U. S. Public Health Service. V. D. Pamphlet No. 5, issued by *the U. S. P. H. S.* 24 pp.

Two Years Fighting V. D.: V. D. Bulletin No. 65, issued by the U. S. P. H. S. 48 pp.

A detailed description of the educational activities under the Chamberlain-Kahn Act.

Transactions of the Conference of Venereal Disease Control Officers of the State Health Departments and the U. S. P. H. S., 1924. 20 pp.

Venereal Disease Information, issued monthly by the U. S. Public Health Service for use in its coöperative work with the state health departments. This periodical "trade journal," begun in 1920, contains valuable articles describing various aspects of the administration of the Act.

Federal Aid for Maternal and Infant Hygiene

Annual Report of the Chief of the Children's Bureau to the Secretary of Labor, 1913. *Ibid.*, for 1914, 1915, 1916, 1917, 1918, 1919, 1920 1921, 1922, 1923, 1924, 1925, 1926.

These reports give a summary of the development of maternal and infancy work.

Brown, Dorothy Kirchwey: *The Case for Acceptance of the Sheppard-Towner Act.* National League of Women Voters, Washington. 1923. 69 pp.

A very able plea for state matching of federal funds under the Act, addressed to women's groups in the states.

Congressional Record, Vol. 61, for debates on the Maternity and Infancy Act. See especially debate in Senate on July 2 and

22, 1921, with attack by Senators Reed and King and defense by Senator Kenyon.

Standards of Child Welfare. Reprint from Conference Series No. 1. Bureau Pub. No. 60, U. S. Dept. of Labor, Children's Bureau. Washington. 1919.

The Promotion of the Welfare and Hygiene of Maternity and Infancy. The Administration of the Act of Congress of Nov. 21, 1921, for the Period March 20, 1922, to June 30, 1923. Children's Bureau Publication No. 137. Washington. 1924. *Ibid.*, for Fiscal Year ended June 30, 1924. Children's Bureau Publication No. 146. Washington. 1925. 56 pp.

These annual reports give the best account of the administration of the Act.

U. S. Congress. House. Hygiene of Maternity and Infancy. Hearings before the Committee on Labor (65 Cong., 3 Sess.), on H. R. 12634, a bill to encourage instruction in the hygiene of maternity and infancy, . . . Wed., Jan. 15, 1919, Tues., Jan. 28, 1919. Washington. 1919. 60 pp.

U. S. Congress. Senate. Protection of Maternity and Infancy. Hearing before the Comm. on Public Health & Natl. Quarantine, May 12, 1920 (66 Cong., 2 Sess.), on S. 3259, a bill for the protection of maternity and infancy. . . . Washington. 1920. 68 pp.

U. S. Congress. House. Public Protection of Maternity and Infancy. Hearings before the Comm. on Interstate & Foreign Commerce of the House of Reps., July 12-23, 1921 (67 Cong., 1 Sess.), on H. R. 2366, a bill for the public protection of maternity and infancy. . . . Washington. 1921. 278 pp.

These hearings contain the principal analyses of the bill, and the objects of its sponsors; they reveal the lobby *pro* and *con*, in action. The hearings on H. R. 2366 contain the most valuable material.

PUBLIC HEALTH AND THE FEDERAL PROBLEM

(CHAPTER XV)

Brown, Dorothy Kirchwey: *Federal Aid to the States.* Washington. 1926. 53 pp.

MacDonald, Austin F.: *Federal Subsidies to the States.* Philadelphia. 1923. 117 pp.

From the growing pamphlet and ephemeral literature deal-

ing with the subject of federal aid the two works given above are selected as giving the best description of the American system. Each has a good bibliography.

Laski, H. J. *The Foundations of Sovereignty and other Essays.* New York. 1921. 317 pp.

Contains a suggestive essay entitled the Problem of Administrative Areas.

MacDonald, William: *A New Constitution for a New America.* New York. 1921. 260 pp.

Recognizes the inevitability of the centralization process, but like Pierce recommends redistribution of authority by amendment of Constitution rather than by judicial interpretative process. No special treatment of the federal health function.

Pierce, Franklin: *Federal Usurpation.* New York. 1908. 437 pp.

A protest against centralization by indirect means. Not of much value.

Ritchie, Albert C.: *Federal Subsidies to the States.* Address at the Annual Convention of the Pennsylvania State Chamber of Commerce, Harrisburg, Penna., October 15, 1925. 24 pp.

A representative argument against the system of federal aid.

Thompson, Walter: *Federal Centralization.* New York. 1923. 399 pp.

Probably the best book on the general subject, although it stresses mainly its legal aspects.

West, Henry Litchfield: *Federal Power, Its Growth and Necessity.* New York. 1918. 216 pp.

A popular defense of the pre-war centralization tendencies.

White, Leonard D.: *Introduction to the study of Public Administration.* New York. 1926. 495 pp.

Chapter IV deals in a general way with the modern problems of centralization and decentralization in government. The whole volume is an exceedingly useful and well-organized treatment of the general problems of public administration.

"Who Pays Uncle Sam's Bills," *Reprint* from *American Highways,* October, 1925. 16 pp. Also reprinted, along with other articles on the subject in the *Congressional Record,* 69 Cong., 1 Sess. (March 10, 1926), pp. 5314-5322.

An excellent, popular argument, supported by statistics, against the theory that federal aid results in poor states robbing rich states.

NATIONAL PUBLIC HEALTH AND ADMINISTRATIVE REORGANIZATION

(CHAPTERS XVI AND XVII)

EPISODE OF THE NATIONAL BOARD OF HEALTH

Allen, William H.: "The Rise of the National Board of Health," *Annals of the American Academy of Political and Social Science,* Vol. XV (1900), pp. 51-68.

Deals mainly with the quarantine background of the movement.

Annual Report of the National Board of Health (1879, 1880, 1881, 1882, 1883, 1885).

A detailed record of the Board's activities with much miscellaneous statistical matter and reports of researches upon various sanitary problems.

Billings, J. S., M. D.: "The National Board of Health and National Quarantine," *Transactions of the American Medical Association,* Vol. XXXI (1880), pp. 435-455.

Bowditch, Henry I., M. D.: "The Future Health Council of the Nation," *Transactions of the American Medical Association,* Vol. XXVI (1875), pp. 301-339.

Garrison, Fielding H.: *John Shaw Billings, A Memoir,* N. Y. 1915.

Life and Correspondence of Henry Ingersoll Bowditch (2 vols.), Vol. II, 1902.

These two biographies contain scraps of useful information about the health activities of two important leaders in the movement for, and in the administration of, the National Board of Health.

Reports and Papers Presented at the Meetings of the American Public Health Association.

The successive volumes of these annual proceedings are the most valuable source of information for this subject. Of especial value in connection with the National Board history are the following:

Account of the Richmond Meeting; Vol. IV (1878, 1879, sixth annual meeting), pp. 152, 391.

J. L. Cabell, "A Review of the Operations of the National Board of Health," Vol. VIII (1882), pp. 71-101.

Christopher C. Cox, M.D., LL.D. (Pres. Board of Health,

Washington, D. C.), "A Report Upon the Necessity for a National Sanitary Bureau," Vol. I (1875), pp. 522-532.

Stephen Smith, "Historical Sketch of the American Public Health Association," Vol. VIII (1882).

Stephen Smith, M.D., LL.D., "On the Progress of Public Health Organization in the United States," Vol. XXVII (1900), pp. 19-26.

The Sanitarian.

This magazine, founded at the beginning of the decade of the 'seventies, is also valuable for articles and addresses by leaders in the movement for a national health agency. Especially useful are the following:

J. S. B. (Dr. John S. Billings), "National Health Legislation on Trial," Vol. VII (1879), pp. 501-510. This gives an account of the legislative activities of the A. P. H. A. and Congressional steps toward creating the National Board of Health.

J. L. Cabell, M.D., "The National Board of Health," Vol. VIII (1880), pp. 1-23. This was the annual address given by the president of the National Board of Health to the A. P. H. A., of which Dr. Cabell was also President.

Weekly Bulletin of the National Board of Health, 1879-1882.

Contains a running account of the Board's activities during its four active years.

The 1906-1912 Movement for a Health Department

Norton, J. Pease: "The Economic Advisability of Inaugurating a National Department of Health," *Journal of the American Medical Association,* Vol. XLVII, p. 1003 ff.

This address, delivered before the American Academy for the Advancement of Science, was the starting point for the 1906-1912 movement.

Scheffelin, Wm. J.: "Work of the Committee of One Hundred on National Health," *Annals,* Vol. XXXVII (March, 1911), pp. 321-330.

Contains a good history of the 1906-1912 movement.

The Owen Dept. of Health Bills

(S. 6049 introduced Feb. 1, 1910, 61 Cong., 2 Sess.)

U. S. Congress. Senate Committee on Public Health and National Quarantine. Proposed Department of Public Health. Hearings on S. 6049 (April 29, 1910). Washington. 1910.

Ibid., Hearings before the Subcommittee of the Committee on Public Health and National Quarantine, May 19, 1910. Statement by Surgeon-General Wyman.

U. S. Congress. Senate. National Public Health. Papers, Opinions, and Letters, etc., relative to the National Public Health, in the Consideration of Senate Bill S. 6049 . . . (Senate Doc. 637), June 18, 1910. Washington.

U. S. Congress. Department of Public Health. Memorial on behalf of the American Medical Association in relation to S. 6049, . . . Senate Doc. 514, April 26, 1910.

These hearings and papers contain the best record of the attempt to secure a health department in 1910 and the arguments of the opposition lobby.

(S. 1 INTRODUCED 1912, 62 CONG., 2 SESS.)

U. S. Congress. Senate. Report to accompany S. 1, April 13, 1912 (Senate Report 619).

U. S. Congress. Memorial Relating to the Conservation of Human Life as contemplated by Bill S. 1, by Irving Fisher, April 5, 1912 (Sen. Doc. 493).

U. S. Congress. Suggestions with reference to S. 1 submitted by Secretaries of the Treasury, Agriculture, Commerce, and Labor. Washington. 1912.

U. S. Congress. Public Health Bureau or Service. Address by Hon. John L. Bates, before Committee on Public Health and National Quarantine of the Senate, March 20, 1912, with relation to S. 1 and S. 5971 (Sen. Doc. 560).

THE MANN-MARTIN BILLS

U. S. Congress. Health Activities of the General Government. Hearings before the House Committee on Interstate and Foreign Commerce. Parts I-VII, 1910 (61 Cong., 2 Sess.), 516 pp.; Parts X, XI, Jan. 18, 1911 (61 Cong., 3 Sess.), hearings on H. R. 30292.

These hearings contain extensive arguments on the subject of medical freedom. H. R. 30292 was, in substance, the bill that became law in 1912.

U. S. Congress. House Report to accompany H. R. 30292, 61 Cong., 3 Sess. (House Report 2,000).

Commission on Economy and Efficiency

Taft, Wm. H.: Speech at Albany March 19, 1910, *New York Times,* March 20, 1910.

U. S. Congress. Report of President's Commission on Economy and *Efficiency Recommending an Independent Health Service.* Submitted to Congress Jan. 11, 1913 (62 Cong., 3 Sess., Senate Document 1002).

The Department of Public Welfare

U. S. Congress. Senate. Department of Social Welfare. Hearing before the Committee on Education and Labor, on S. 408, a bill to establish a Department of Social Welfare, April 21, 1921 (67 Cong., 1 Sess.). 22 pp.

Contains the early testimony of General Sawyer.

U. S. Congress. Department of Public Welfare. Joint Hearings before the Committees on Education, on S. 1607 and H. R. 5837, bills to establish a Department of Public Welfare, . . . May 11-20, 1921 (67 Cong., 1 Sess.). Washington. 1921. 177 pp.

Contains the opposition testimony.

General Administrative Reorganization

Cleveland, F. A., and S. M. Lindsay eds.: "National Expenditures and Public Economy," *Proceedings of the Academy of Political Science,* New York City, Vol. IX (July, 1921). 208 pp.

Contains various papers presented at an Academy session partly devoted to national administrative reorganization. Includes the plan of the National Budget Committee, which was also issued as a separate pamphlet.

Colver, H. N., and Jas. A. Tobey: "National Health Departments in Review," *The Nation's Health,* Vol. III (July, 1921).

Sketchy statement of the central health organization in several foreign countries.

Fairlie, J. A.: "Advisory Committees in British Administration," *American Political Science Review,* Vol. XX (Nov., 1926), pp. 812-822.

Useful account of the development of this feature of administration in Great Britain.

Laski, H. J.: *The Grammar of Politics.* New Haven. 1925.

Pages 377-383 deal with the organization and usefulness of advisory committees in central government.

Message of the President of the United States transmitting to the two houses of Congress the Budget for the fiscal year ending June 30, 1923 and The Report of the Director of the Bureau of the Budget. Washington. 1921. 62 pp.

Contains the description by the then-Director Charles G. Dawes of the function of the Budget Bureau as chief of administration. See also subsequent annual reports of the Director of the Bureau of the Budget.

Ministry of Reconstruction. Report of the Machinery of Government Committee. London, H. M. S. Office. 1918. (Cd. 9230) 80 pp.

Contains a general analysis of the problem of administrative organization—of distinct value.

Morris, Sir Malcolm: *The Story of English Public Health.* London. 1919. 154 pp.

Newsholme, Sir Arthur: *The Ministry of Health.* London. 1925. 271 pp.

These two volumes contain good accounts of the evolution of British national health organization.

Short, Lloyd Milton: *The Development of National Administrative Organization in the United States.* Baltimore. 1923. 490 pp.

Excellent description of evolution of national administrative agencies; has a good bibliography.

Tobey, James A.: *The National Government and Public Health.* Baltimore. 1926. 423 pp.

This is one of the Studies in Administration issued by the Institute for Government Research. It gives an inventory of the contemporary health activities of all of the national administrative agencies together with a plan for their reorganization. It is the most recent and, in some ways, the most thorough survey of federal health work.

U. S. Congress. Reorganization of the Executive Departments. Letter from the President of the United States to Walter F. Brown . . . transmitting a Chart Exhibiting . . . the Present Organization of the Government Departments and the Changes Suggested by the President and Cabinet (Senate Doc. 302, 67 Cong., 4 Sess.), Feb. 13, 1923.

U. S. Congress. Reorganization of Executive Departments. Hearings before the Joint Committee on the Reorganization of the Administrative Branch of the Government, Congress of the

U. S. on S. J. Res. 282, January 7-31, 1924 (68 Cong., 1 Sess.). Wash. 1924. 786 pp.

U. S. Congress. Reorganization of the Executive Departments. Report of the Joint Committee on Reorganization, June 3, 1924 (Senate Document 128, 68 Cong., 1 Sess.).

These three documents contain the principal material relating to the work of the Joint Committee on Reorganization.

U. S. Congress. House Committee on Rules. Reorganization of the Administrative Branches of the Government. Hearings on H. R. 4770 (69 Cong., 1 Sess.), Jan. 15, 1926. Washington. 1926. 17 pp.

This is the recent bill proposing a reorganization board charged with the duty of recommending specific transfers to the Chief Executive.

U. S. Public Health Reports:

"A Department of Health for Canada," Vol. 34, August 29, 1919.

"A Department of Health for the Union of South Africa," Vol. 35, Jan. 9, 1920.

"A Department of Health for Australia," Vol. 36, May 13, 1921.

"Public Health Service in the Republic of Chile," Vol. 34, April 1919, pp. 791-92.

Weber, G. A.: *Organized Efforts for the Improvement of Methods of Administration in the United States.* Appleton, New York. 1919.

This book presents the background of national administrative organization.

White, Leonard D.: *Introduction to the Study of Public Administraion.* New York. 1926. 495 pp.

Chapters III, V, VI, VII, VIII give a valuable general view of the problems of administrative organization. Chapter XVII deals similarly with the problem of legislative control of the administration.

Willoughby, W. F.: *The Reorganization of the Administrative Branch of the National Government.* Baltimore. 1923. 298 pp.

The most detailed and informing study of the concrete problems of general reorganization.

THE PUBLIC HEALTH PERSONNEL PROBLEM

(CHAPTER XVIII)

The Commissioned Corps System

Congressional Record, 67 Cong., 2 Sess. (May 8-June 2, 1922). Contains debates on H. R. 10972—the bill for Service pay—which was adopted June 10, 1922.

See also text of Act published in *Public Health Reports,* Vol. 37 (June 23, 1922), pp. 1524-1534. And House Report 926 (67 Cong., 2 Sess.) in two parts, to accompany H. R. 10972; also House Report 653, March 2, 1922; Senate Report 525, Feb. 23, 1922; and Senate Report 572 on bills dealing with the same subject.

Official List of Commissioned and Other Officers of the U. S. Public Health Service. Issued annually as a miscellaneous publication of the Service.

Contains roster of officers with grade, length of service, etc.

Regulations for the Government of the United States Public Health Service. 1920. Washington. 1920.

Rucker, W. C., Asst. Surgeon-General, U. S. Public Health Service; *The United States Public Health Service as a Career.* Miscellaneous Publication No. 13, U. S. P. H. S. Washington. 1917. 19 pp.

Schmeckebier, L. F.: *The Public Health Service.* Baltimore. 1923. 298 pp.

This book (Chapter IV) gives the basis in statutes and regulations for the commissioned corps system, including the pay system established in 1922. Tobey's *National Government and Public Health* uses this same material, pp. 163-181.

"The Reserve of the United States Public Health Service," *Reprint* No. 603, *P. H. R.,* Feb. 7, 1919, pp. 230-232. Washington. 1919. *Ibid.,* Nov. 1, 1918, pp. 1865-1866 (contains text of Reserve Act).

"The United States Public Health Service: Information for Persons desiring to enter the Regular Corps of the Service," *Reprint* No. 719 from *P. H. R.,* Dec. 23, 1921. Washington. 1922. 12 pp.

U. S. Congress. Readjustment of Service Pay. Hearings before a Special Committee (67 Cong., 2 Sess.), Nov. 25-Dec. 5, 1921. Washington. 1921. 484 pp.

Contains discussion of philosophy and details of the 1922 Service Pay Act. See esp. pp. 421-450 containing testimony by Public Health Service officers.

The Merit System under the Civil Service Commission

Annual Report of the United States Civil Service Commission, 1925. See also reports for preceding years.

These documents contain material from which description of the classified service can be gathered.

Mayers, Lewis: *The Federal Service: Studies in Administration of the Institute for Government Research.* Appleton, New York. 1922. 607 pp.

This is an informing and comprehensive survey of the organization and problems of the whole national civil service. It includes an excellent short description and appraisal of the Public Health Service personnel system.

Proctor, Arthur W.: *Principle of Public Personnel Administration: Studies in Principles of Administration.* Institute for Government Research. Appleton. New York. 1921.

A general account of the classified service system.

U. S. Civil Service Commission. Civil Service Act and Rules, Statutes, Executive Orders, and Regulations, with Notes and Legal Decisions, Amended to Sept. 1, 1924. Washington. 1924. 127 pp.

U. S. Civil Service Commission. General Information in regard to the United States Civil Service. Washington. 1923. 27 pp.

U. S. Congress. House. Report of the Congressional Joint Commission on Reclassification of Salaries, March 12, 1920 (House Doc. 686, 66 Cong., 2d Sess.) Washington. 1920.

This contains in Part I (pp. 8-132) an interesting and important discussion of national civil service problems.

General Problems of Public Health Personnel

American Foreign Service. Washington. 1923. 35 pp. A popular pamphlet describing the personnel system recently adopted for the Foreign Service.

American Journal of Public Health:

Vol. XIII, May, 1923—Articles by Drs. Winslow and Rankin on training of sanitarians.

Vol. XIV, June, 1924—Symposium on public health training.

Vol. XV, June, 1925—Special number on education of sanitarians.

Vol. XVI, May, 1926—Articles on training of sanitarians.

These collections of articles and addresses continue the discussions of the Surgeon-General's Conference.

Macmahon, A. W.: "Selection and Tenure of Bureau Chiefs in the National Administration of the United States," *American Political Science Review,* August, 1926, pp. 548-582; November, 1926, pp. 770-811.

A valuable discussion of the problem of personnel in the supervisory positions.

Opportunities for a Life Career in the Field of Public Health. Prepared under the direction of the Advisory Committee to the Surgeon-General on the Education of Sanitarians and the Future of Public Health in the United States. Issued by the Public Health Service. Washington. 1924. 62 pp.

A popular pamphlet used for general recruiting purposes.

Sedgwick, Wm. T.: "Modern Medicine and the Public Health," *P. H. R.,* Vol. 36 (Jan. 28, 1921), pp. 109-116.

Earlier discussions of the health personnel problem in its broader aspects

"The Future of Public Health in the United States and the Education of Sanitarians. Transactions of the Conference . . . held at Washington, D. C., March 14, 15, 1922, under the auspices of the U. S. Public Health Service," *Public Health Bulletin* No. 126. Washington. 1922. 159 pp. Also *Public Health Bulletin* No. 124, May, 1922, 42 pp., which contains a briefer report of the same conference.

These Transactions contain valuable discussions of the general problems of recruiting, training, and organizing public health personnel.

Vincent, George E., President of the Foundation: *The Rockefeller Foundation. A Review for 1921.* New York. 1922. 59 pp. (esp. pp. 13-28).

Whipple, George C.: "The Education of Health Officers," *P. H. R.,* Vol. 36. (Oct. 21, 1921), pp. 2593-2622.

White, Leonard D.: *Introduction to the Study of Public Administration.* New York. 1926. 495 pp.

Pages 206-366 deal in a general way with the problems of public personnel administration.

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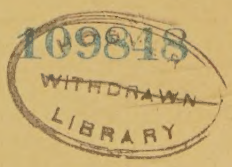
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